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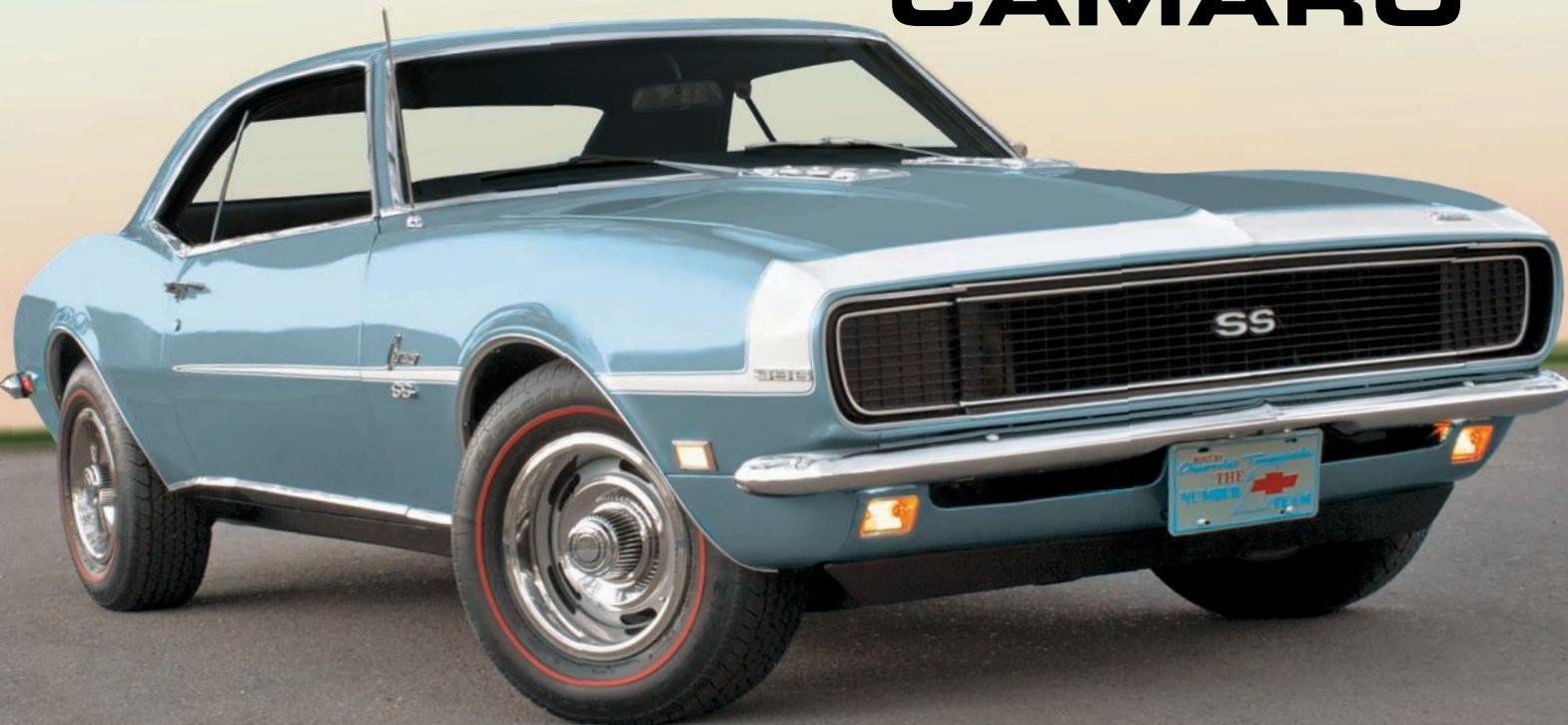
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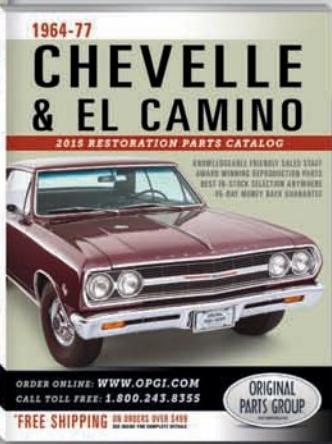
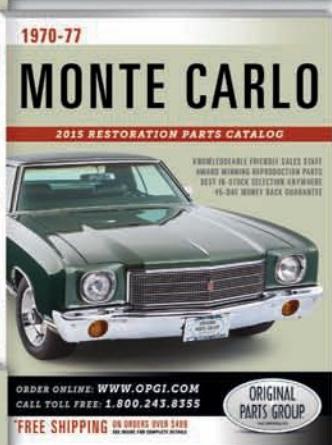
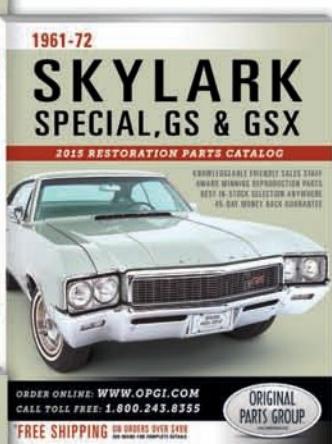
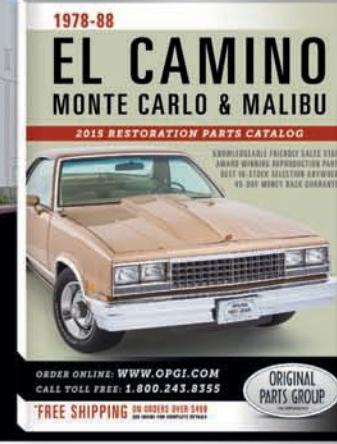
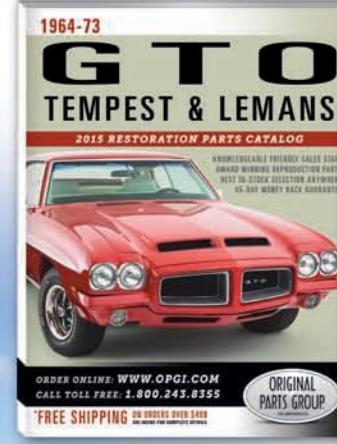
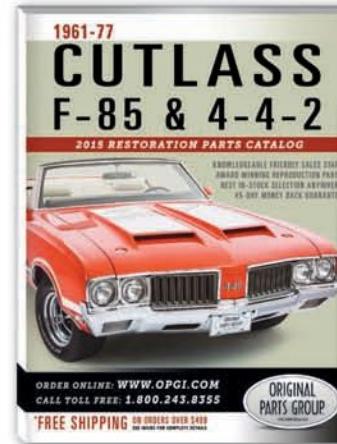
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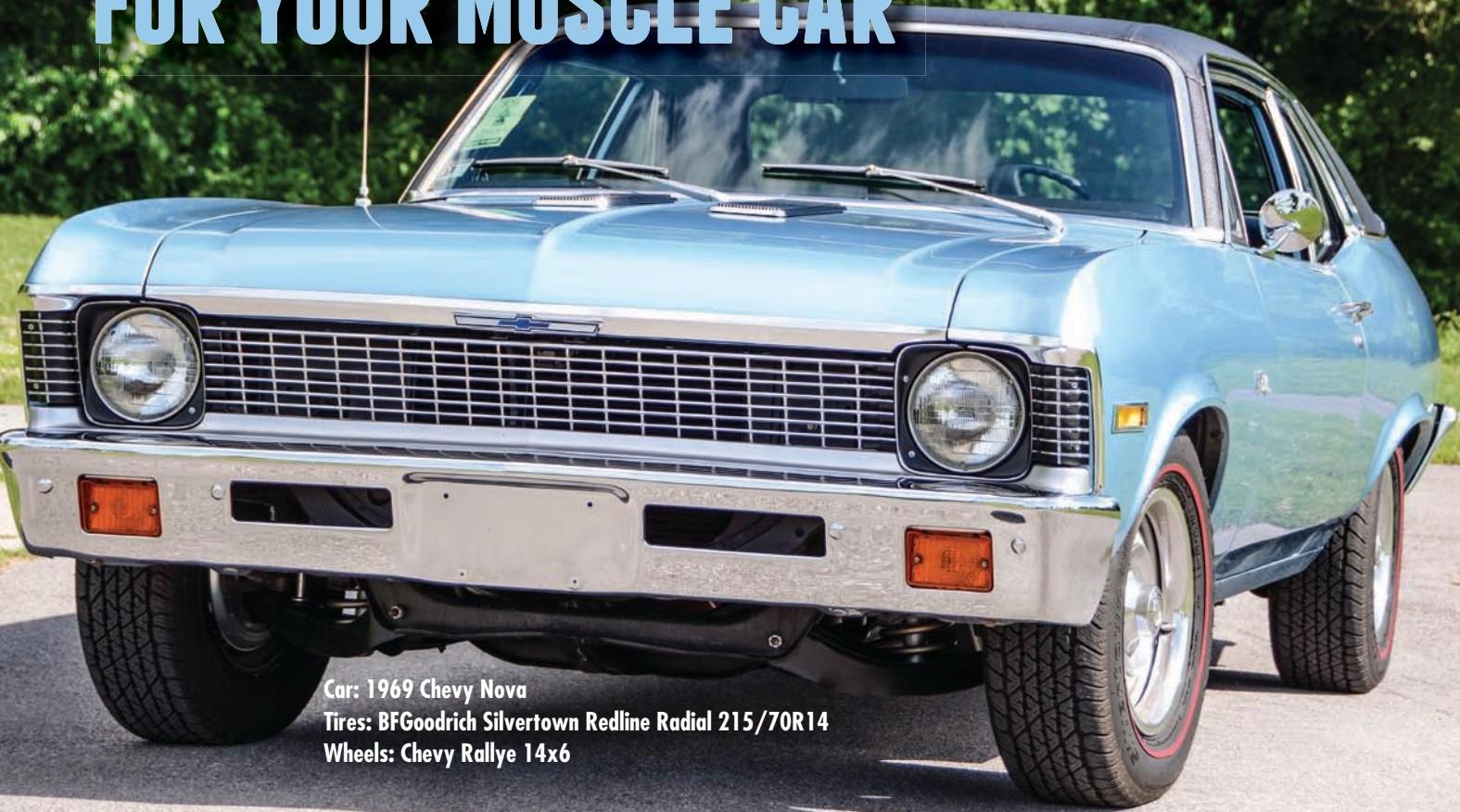
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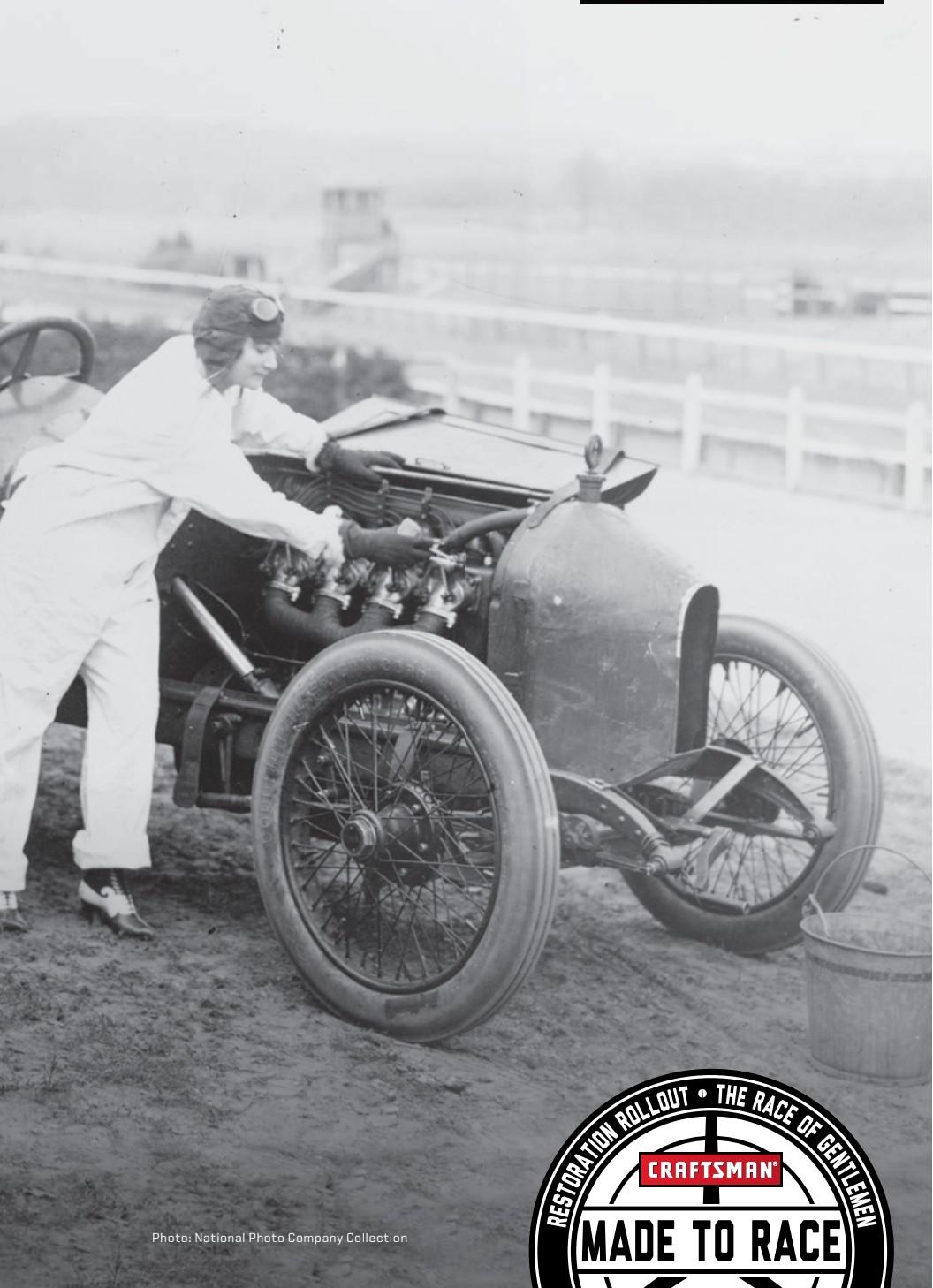


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# No Rules

**“Many of us who are into these cars spent a lot of time thinking about what we wanted to do to make them stand out and/or run harder...”**

## **n researching the**

backgrounds for our stories, we often find ourselves in talks with interesting people who share

muscle cars as a common denominator.

Most recently, I found myself speaking with Frank Kozik, the owner of the '69 Charger featured in this issue.

In some circles, Kozik is quite well known as an artist, one who created a new genre of concert poster during the '90s while producing works for a long list of clients that included musical acts from Pearl Jam to Neil Young. He also started a record label during that period and even directed some notable music videos.

As the new millennium dawned, Kozik switched gears and focused on fine art as well as what was then a relatively new pursuit that has come to be referred to as the art toy movement. Also known as "designer toy" and "urban vinyl," you could think of it as a new form of sculpture, where figures are designed and produced by artists, often in vinyl, usually in fairly limited numbers. You might be surprised at how fervent fans of this movement are, and how much a part of popular youth culture it has become—we're told a large portion of the wildly popular Comic-Con shows in San Diego are now devoted to this type of work. Among devotees of this strain, Frank Kozik is a recognized pioneer.

That background and a quick perusal of Kozik's work should set the tone for the sort of person he is—a creative type who follows his own lead and isn't overly concerned with what you think. That mindset can be seen in the build of the Charger—it was done to suit Kozik's taste, to look and perform the way he wanted it. As such, the car is not exactly as Chrysler configured it in 1969, nor is it dialed in to the latest trends in the modified-muscle car hobby. And none of it was an accident.

In our discussion of the car and the process that led to its current configuration, Kozik explained that he initially wanted the Charger to have the vibe of the street machines he recalls prowling the boulevards of northern California in the mid-to-late-'70s, when '60s muscle was dirt cheap and accessible to teens like him. They'd set their cars up to look cool and go fast, with little regard for originality or "correctness." In that time and place, where the supply of \$500 GTOs, Camaros and Road Runners seemed bottomless, there was no reason not to make changes.

As Kozik's current-day project moved forward, he became more drawn to the look of modified cars from the late '60s, an influence that crept over the Charger as it progressed. In the end, the car may be tough for observers to classify, but it turned out just the way Kozik wanted, and five years on, he's still enjoying the hell out of it.

Reading Dan Strohl's piece on Kozik's Charger was

intriguing to me, as the approach to the build was a bit different from what we typically find with these types of cars. He didn't come at the project as an investor, or someone who wanted to make sure the finished car would be worth what he'd put into it. He also didn't view the tasks of reviving the car through a restorer's lens. He wanted the car to fulfill the vision in his mind, and he wanted to drive it.

Shedding concerns over values and matching numbers seemed very freeing in a way that I'd largely forgotten when considering muscle car projects. There are plenty of modified muscle cars being built today, but often, those projects have their own perceived mandates to meet—certain levels of performance, a recipe of expected components and so on. They may have little to do with factory-correct specs, but many of those builds still appear to be adhering to guidelines, even if they're not stated.

Conversely, Kozik's car looks like a return to the elements of the muscle car hobby, even if that wasn't necessarily the intention. Factory lines and trim, enhanced engine performance, firmed up chassis and a wicked street attitude. No major surgery, no complete abandonment of factory ideals, just some upgrades and personalization.

If that sounds familiar, it's probably because you're recalling similar motivations from your own early experiences with these cars. Dig into your stash of old car magazines and look at some of the feature cars from the early days of the first muscle "restoration" movement. I'm putting that in quotes because I think you'll find that what passed for restoration in the mid-'80s wouldn't stand up today. Lots of speed parts and aftermarket wheels combined with factory-style paint schemes and refurbished interiors.

Though the knowledge of what was correct was not as thorough as it is today for many models, that wasn't the reason those cars deviated from showroom stock—it was simply because their owners were setting them up the way they'd envisioned them. Many of us who are into these cars spent a lot of time thinking about what we wanted to do to make them stand out and/or run harder—that was why you had a muscle car. That was the fun part. Somewhere, a lot of that seems to have been lost.

The desire to set muscle cars back to their factory-correct form remains a cornerstone of this sect of the old-car hobby, and surely will remain so, particularly for the most rare and unusual examples. But somewhere in between, there's probably still room to loosen up once in a while, and just put something together the way gearheads have been scheming for decades. What better way to blow off steam in between wrench sessions on that concours restoration project you've been toiling away at than a quick blast in a hot-rodded muscle car?

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DODGE

## RETURN OF THE VIPER ACR

### Dodge's V-10-powered track star pulls 1.5g in the bends

As Dodge Vipers go, the ACR (American Club Racer) is the Viperest: performance increases, weight reduction and suspension tweaks on the Viper coupe go a long way to making it a track-ready beast. The original came in 1999, with another following in 2008-'09. For 2010, aerodynamic tweaks saw Viper claim the Nordschleife production-car track record, with a time of 7:12.13.

Now, for 2016, comes the next iteration of the Viper ACR. Taking lessons from the 2012-2014 Viper GTS-R racing program, the new ACR retains the handcrafted, all-aluminum, 645 hp 8.4-litre V-10 overhead-valve engine. Changes focus on aerodynamics and chassis issues. Double-adjustable Bilstein coilovers

(with 10-way rebound and compression adjustability) work in conjunction with the factory-provided ride height adjustment of up to 3 inches. Front springs are rated at 600 lb/in and rear springs at 1,300 lb/in. With its unique race alignment and additional negative camber (compared to the entry SRT model), plus aerodynamic modifications, the 2016 Viper ACR is capable of sustaining more than 1.5 g in high-speed turns.

The available Extreme Aero Package delivers three times the downforce of the Viper TA 2.0 package, and includes a 1.8-meter-wide adjustable dual-element rear wing, rear carbon fiber diffuser, unique SRT hood with removable louvers, detachable

extension for the front splitter and four dive planes. So equipped, Viper's development engineers have measured nearly a ton of downforce at its 177 MPH top speed.

Brembo Carbon Ceramic Matrix brakes use two-piece 15.4-inch front and 14.2-inch rear rotors, with six-piston calipers in front and four-piston calipers rear. The body features detatchable front brake ducts to help cool the calipers. Tires are 19-inch Kumho Ecsta V720, with compounds and tread patterns designed specifically for the ACR; they're said to be a second and a half quicker per lap than off-road-only race tires.

The 2016 Dodge Viper ACR goes on sale around the time you read this.

## 2016 MUSTANG

### Performance Package GT ragtops and the return of the California Special

Virtually all new in 2015, with announced models that are still to arrive, the 2016 Ford Mustangs receive a few new packages.

Manually-shifted GT convertibles will be available with the Performance Package (including strut tower brace, K-brace, revised suspension with upsized rear sway bar and heavy-duty front springs, 3.73 limited-slip axle, 19-inch ebony-painted wheels with summer tires and more), and all '16 GTs receive turn signal indicators in the hood vents — a touch that dates back to

1967, and what Ford calls "an iconic piece of pony car DNA."

GT owners can also choose from a new California Special package, which includes 19-inch ebony-painted wheels; exclusive hood and side stripes; a more aggressive front splitter and pedestal spoiler; black-



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painted hood vents and mirrors; interior spiffs on the seats, dash and door panels; and exclusive grille and taillamp treatments.

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Compiled by Kurt Ernst



FACTORY FIVE

## CONGRESSMEN INTRODUCE BILL TO EXEMPT LOW-VOLUME REPLICAS FROM SAFETY STANDARDS

A new bill, known as H.R.2675 and titled the Low Volume Vehicle Manufacturers Act of 2015, proposes removing restrictions that prevent replica car makers from delivering turnkey cars to customers without meeting the same motor vehicle safety standards as large-scale automakers.

Specifically, the bill tasks the National Highway Traffic and Safety Administration and the Environmental Protection Agency with amending their rules to accommodate low-volume makers who fabricate replicas based on models that went out of production at least 25 years ago. The proposed law would also place an upper limit on those makers of 500 cars produced or imported into the U.S. per year. The law would require the drivetrains to meet current Clean Air Act standards, according to one of the bill's sponsors.

The makers who would join the program would have to document their sales and register reports annually with NHTSA and the EPA. How to implement the bill, should it become law, would be up to the federal agencies tasked with exempting the low-volume makers.

The bill carries bipartisan support, with co-sponsors Markwayne Mullin (R) of Oklahoma and Gene Green (D) of Texas as the signatories on the filing. — Terry Shea

FORD MOTOR COMPANY

## ALL-NEW FORD GT RETURNS TO Le MANS IN 2016

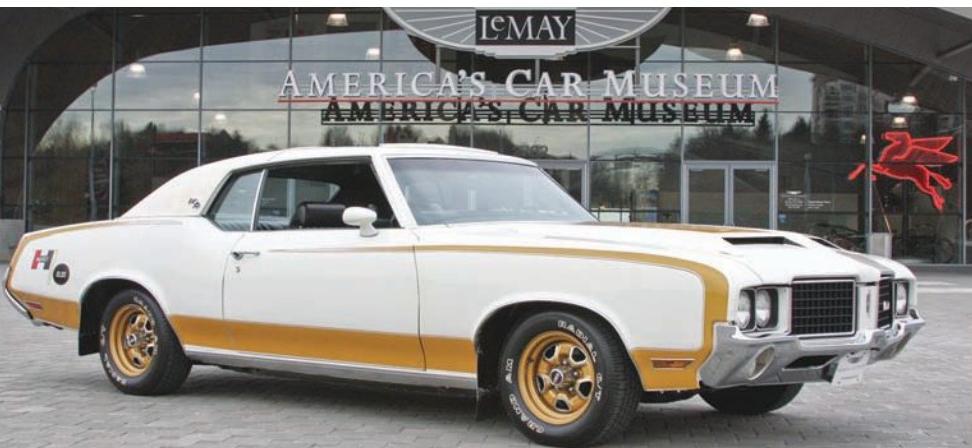
### To mark the 50th anniversary of its

1966 1-2-3 finish at Le Mans, Ford has announced that its new Ford GT will return to Le Mans in 2016, in a factory-backed LM GTE Pro class effort managed by Chip Ganassi Racing with Felix Sabates.

Ford's new supercar will race at far more than Le Mans in 2016, too. Current plans have the cars running the full schedule of the FIA World Endurance Championship (likely to be eight races, including Le Mans) plus the full 13-race schedule of the TUDOR United SportsCar

Championship. The season will open for the team in January, with the 24 Hours of Daytona, and counting both series, a total of four cars will be campaigned.

Unlike the V-8 engined Ford GT40s of the 1960s, the 2016 Ford GT will be powered by a twin-turbo 3.5-liter EcoBoost V-6, developed with performance partner Roush Yates Engines. The 3.5-liter EcoBoost engine has already seen its share of competition, as it has powered several entries in the TUDOR United SportsCar Series since the 2014 season.



Le MAY—AMERICA'S CAR MUSEUM

## "AMERICAN MUSCLE—RIVALS TO THE END" COMES TO Le MAY—AMERICA'S CAR MUSEUM

### Opened on July 11 at The Le May,

America's Car Museum, in Tacoma, Washington, "American Muscle—Rivals to the End" takes a look back at an era when gas was cheap, the economy was strong and brand rivalries flared in the showroom, on the dragstrip and at stoplights from coast to coast.

While most of the 20 cars exhibited once

crossed the showroom floor, a few examples are more exotic. A 1964 Buick Wildcat Mitchell-Bentley prototype is a one-off fiberglass-bodied concept, constructed to demonstrate the potential of a new material manufacturing process. A 1964 Ford Fairlane Thunderbolt, one of just 100 examples built by Dearborn Steel Tubing for Ford, was designed for the express

purpose of quarter-mile dominance, yet it remained street legal in as-delivered form.

Production muscle cars on display include a 1963 Ford Galaxie 500 XL sedan, 1964 Chevrolet Chevelle Malibu SS, 1964 Pontiac GTO convertible, 1966 Buick Skylark GS hardtop, 1966 Ford Galaxie 7 Litre convertible, 1967 Chevrolet Camaro SS, 1967 Pontiac GTO hardtop, 1969 AMC AMX, 1969 Chevrolet Camaro Yenko 427, 1969 Chevrolet Camaro Z/28, 1969 Plymouth Road Runner hardtop, 1969 Dodge Super Bee hardtop, 1970 Buick GSX, 1970 Plymouth 'Cuda AAR, 1970 Dodge Challenger T/A, 1970 Ford Torino fastback, 1971 American Motors Javelin SST and 1972 Oldsmobile Hurst/Olds hardtop.



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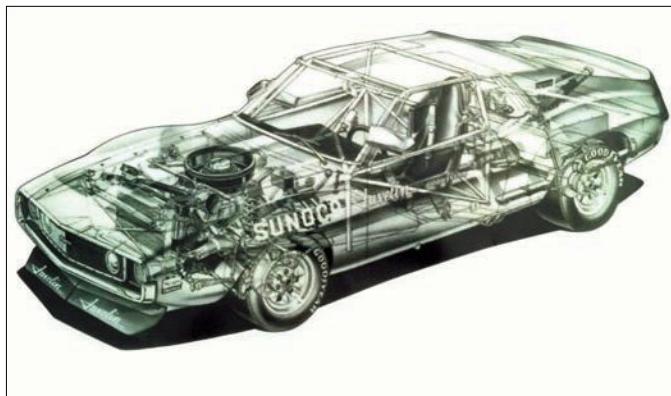
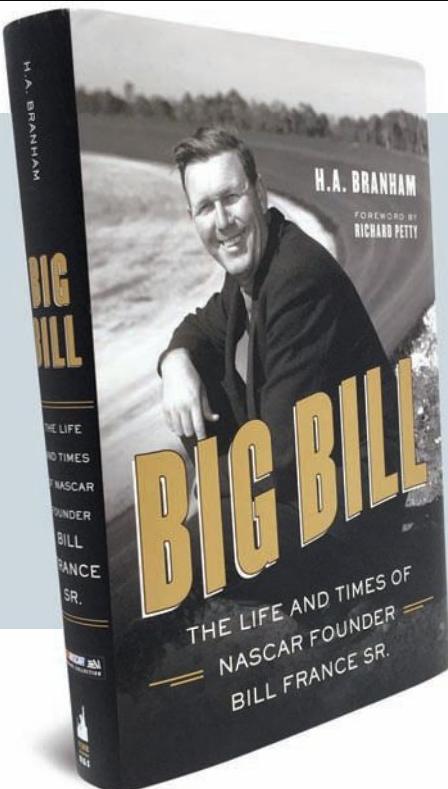
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### AMC TRANS-AM JAVELIN AMX "X-RAY" POSTER

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\$10 (plus \$7 shipping)**

Car guys usually find cutaway art intriguing, particularly when it reveals the details of their favorite cars. In this case, the car isn't simply a Javelin AMX, it's the one Mark Donohue drove in the SCCA's Trans-Am series for Roger Penske. The intricacies unveiled here are somewhat specific to the race cars, which the folks at American Motors knew would be of interest to their dealers and their dealers' customers. Originally, this artwork was used to create posters that were sent to dealers, but that was way back when the Sunoco Javelins were still competing — from what we're told, the posters have not been made since. Until now, that is. The team at Planet Houston AMX has reproduced the artwork into posters that measure 18 x 24 inches, and is offering them in a suitable-for-framing format. The art is black and white and printed on white stock. As the artwork itself is reproduced, the fine detail doesn't look as sharp as it did coming off the artist's drawing board. Still, it's a cool bit of AMC history that should look great on the office or garage wall. — **By Terry McGean**

### BIG BILL

**H.A. Branham • [www.coastal181.com](http://www.coastal181.com) • 877-907-8181 • \$27.95**

It's taken on the status of American mythmaking, the creation of folklore like Paul Bunyan or Jawn Henry, the steel drivin' man. In the years since he passed away, trying to profile Bill France Sr. is like writing a biography of the regal, reticent Robert E. Lee. Did anybody really know the guy? Thankfully, in France's case, the answer is yes. The story of his life has been captured in a 357-page hardcover by the manager of archives and research for the International Speedway Corporation, the speedway-operating subsidiary of NASCAR.

Obviously, this is an authorized account of France's life, the founding of NASCAR and its growth. But the author has impressively sourced his narrative, with the bibliographical listings to back up the story. He also investigates some seldom-seen topics, like, who were the other guys in the fabled meeting at the Streamline Hotel where the organization was created in 1947? The answers are here, along with such items as France's role in the formation of IMSA, and his relationship with Southern politicians such as George Wallace and Mendel Rivers. There's a lot to learn in this book, even if the content is somewhat filtered.



### 1967 BALDWIN MOTION KO-MOTION CORVETTE

**Auto World • [www.autoworldstore.com](http://www.autoworldstore.com) • \$89.99**

Too often in the 1960s, muscle and race cars became memorials to the men who owned and drove them. In 1967, a guy from New York City named Charles Snyder, better known as "Astoria Chas," bought a new big-block Corvette and turned it over to Joel Rosen at Motion Performance on Long Island to be built into a drag car. Sadly, Chas was shipped off to Vietnam and died less than a month after he got there. The car was then run in his memory and became an AHRA national record holder. It was subsequently stored for more than 30 years and then restored. This 1/18th-scale diecast from Auto World faithfully replicates that car.

Besides an excellent finish and fantastic gold-leaf markings, this model of Ko-Motion clearly captures the look and stance of the actual car, with polished spokes up front and oversized Chevrolet steelies mounting M&H Racemaster slicks at the rear. The monster L88 that Motion swapped in is heavily detailed, with plug wires and a separate oil sump. Exhaust cutouts dump into the side pipes. This is a well executed re-creation in scale of an important car from the Northeast drag scene.



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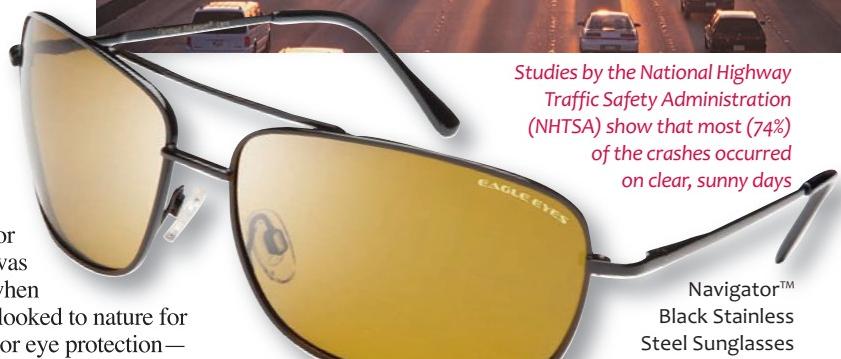
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# STUDEPENDOUS

A supercharged Lark with a Bonneville lineage



By Jim Donnelly

Photography by Daniel Strohl

**I**t's only a memory now, akin to a mirage shimmering above the great expanses of Utah salt. But in 1963, a brace of factory-backed Studebakers set scads of speed records on the Bonneville Salt Flats, and this is one of them. Manufacturer records make it clear that this 1963 R2 Super Lark was consigned by Studebaker Engineering to Andy Granatelli, who led the Studebaker assault on the salt that year. It was too little, too late to save the company, but Studebaker nonetheless reaped huge publicity as Granatelli's fleet of Larks and Avantis sent the U.S. Auto Club's speed records toppling in a variety of classes.

Within three years, however, Studebaker was gone. The cars of Bonneville became, in effect, so much excess inventory. And in a remarkable incident of pure happenstance, a Studebaker collector and restorer of great repute spotted this Super Lark on a used-car lot. That's where this story begins, but the backstory goes back further than that. Granatelli was the boss of

Paxton Products, a supercharger manufacturer, when it was acquired by the Studebaker-Packard Corporation in 1962. Granatelli was named a vice president and chief engineer at Studebaker, and ordered to turn the subsidiary around. By then, Studebaker had taken some positive steps at playing catch-up in the horsepower race, having introduced its 232-cu.in. OHV V-8 a decade earlier. Its block was an uncommonly thick casting, built by engineers who anticipated that its displacement and output would both be increased in time. That's precisely what happened. The V-8 was expanded to 289 cubic inches and installed in the 1957 Golden Hawks, which marked Studebaker engine's first foray into true performance.

Studebaker's team realized that there was more untapped potential, and that the V-8 block was robust enough to handle forced aspiration. By 1958, the engine was further enhanced with a McCulloch centrifu-



gal supercharger, good for 5 to 7 psi, and boosting its output to 275 hp through a two-barrel carburetor. McCulloch was the owner of Paxton, at least until Studebaker bought Paxton and thus acquired not only Granatelli's talents, but also plucked away McCulloch executive Sherwood Egbert to become Studebaker's president. It was Egbert who fast-tracked the development of the Avanti, and thus the R2 supercharged V-8, now with a Paxton centrifugal blower rated at 6 to 8 psi. South Bend's compact, the Lark, was strug-

gling in the sales department, and Egbert decreed that the 289-cu.in. V-8, both supercharged and normally aspirated, would be offered as Lark options in 1963.

Let's try some alphabet soup here: For the uninitiated, the unblown 289 got the designation of "R1." The R2 added Paxton supercharging. In 1964, the Granatelli brothers worked more magic and developed the R3 and R4 engines in their Los Angeles shops, increasing the V-8's displacement to 304.5 cubic inches (to keep it under the 305-cu.in. limit used by some sanctioning



**Avanti engine callout is a dead giveaway that this conservative-cut Lark two-door is seriously potent. Studebaker didn't skimp on standard instrumentation, but Paxton made a separate gauge cluster for under-dash use that is extremely rare today.**

bodies for compact cars) and outfitted with either 9.75:1 compression, the Paxton SN-60 and 335 hp; or with a 12.0:1 squeeze, dual Carter AFBs and 280 hp. About 120 of these engines were built in total. Parts are scarce for them, but this Super Lark boasts some R3 innards. How did that happen? Simply because its owner is a guy who has been hoarding Studebaker parts and doing quality restora-

tions on the cars for decades.

Jon Myer moved from his native Ohio to Los Angeles in the 1960s, embarking on a 30-year career as a crew chief in charge of ground-support vehicles for American Airlines at Los Angeles International Airport. He also started accumulating Studes and parts for them. Lots of them. When he retired from the airline and returned to Duncan Falls, Ohio, following a





struggle with multiple sclerosis, Jon schlepped the whole shebang back to the Midwest. "We moved 26 cars and seven 53-foot trailers full of parts back to Ohio from L.A.," Jon says proudly. "Most people said you couldn't move that much stuff cross country."

When he was still at LAX, Jon worked the midnight shift, which allowed him to pursue his Studie passion during daylight hours. The hobby became a business as Jon evolved into a restorer and parts supplier. He re-established the shop in Duncan Falls, near Zanesville, as Myer's Studebaker Parts & Repair. Today, Jon is a recognized authority on the R1, R2 and R3, and has a stash of seldom-seen parts, a number of which were employed in the Super Lark's restoration.

He provided us with this outline of what constitutes a Super Lark: "If you went out and ordered a Lark from your local Studebaker dealer and said you wanted the supercharged engine but not the front disc brakes or anti-roll bar, you got what was called an R2 Lark," Jon explains. "If you ordered the whole package, and I believe the order number was '88A,' you got the complete package, including the brakes, anti-roll bar, heavy-duty suspension all the way around, adjustable shocks, heavy-duty cooling system with a fan shroud, traction bars, the 160-MPH speedometer and the badges. If it has the grille badge, it's a full-package car, which

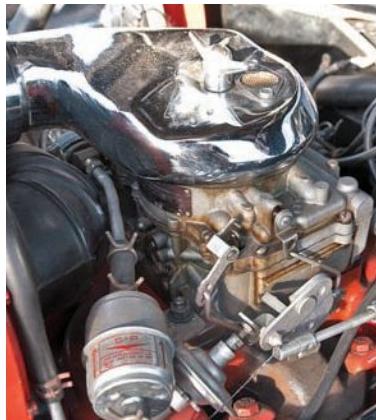
they called the Super Lark in the magazines and the Studebaker ads."

The Super Lark is super rare. Records show that 325 R2 Larks were made, hardtops and convertibles, but only 53 of them were full-package cars, as Jon told us. Jon found this one sitting on a forlorn used-car lot in San Pedro, California, in 1968. It was so ratty, crash-damaged at both ends, the proprietor had hidden it behind the office. The lot was closed when Jon went by, and when he returned a week later, the Super Lark was gone. About two weeks after that, John was at LAX when one of his coworkers was boasting about a black, four-speed Lark that he'd recently bought. It turned out to be the car from San Pedro. It took him about six months to get his buddy to accept a deal in which Jon swapped a 1955 Studebaker with a built-up 289 and a 1959 Chevrolet four-door hardtop for the Super Lark. At this point, he didn't even realize the car was supposed to have a supercharger.

Jon didn't learn that until several years later, while he fixed the body damage, replacing the Brooks Stevens-penned grille, bumpers and taillamps. Then he found out that the Lark was delivered with a supercharger from the factory, after spotting a tag on the Carter AFB identifying it as a sealed carburetor for supercharged use. Jon investigated further, checking production records from South Bend,

**The business end of an R2 powertrain is the huge Paxton centrifugal supercharger.**

**The owner didn't know he had a previously blown car until he spotted the sealed Carter AFB. Subtle STP logo on label around oil breather hints at the strong Granatelli/Bonneville connection.**



and learned conclusively that his Lark had been built by Studebaker engineering in late 1962 as a development mule and then shipped directly to Granatelli at Paxton.

"The first Larks built for 1963 would have body numbers starting at 001, and mine's 568, built on December 18, 1962, so it's a very early car. What happened was when the Avanti came out, people said they really liked the supercharged engine but wanted to have it in a Lark or a Hawk. Nobody had even thought about it to that point," he says. "So they built this car as a mule and shipped it to Granatelli, and he ran it on the Bonneville Salt

**Looks notwithstanding, an R2 Super Lark was a very serious performance car in 1963. A Hurst-stirred Borg-Warner T-10 and Dana rear end are both appropriate.**



# OWNER'S VIEW

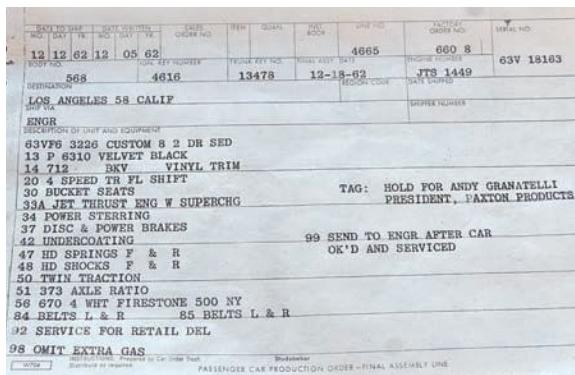
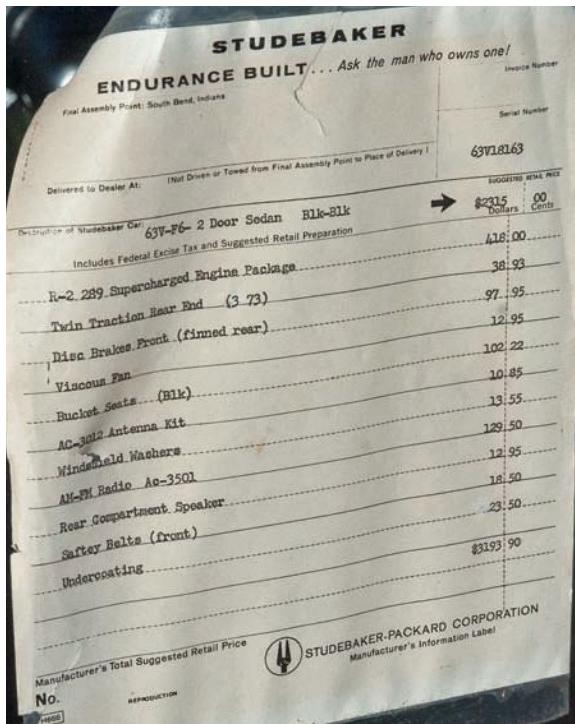
**I've been collecting and restoring Studebakers** since 1965. I went into the Navy, got discharged in 1962, and saw an Avanti in the local dealership in Zanesville. They wouldn't even let me sit in it, even though I fell completely in love with it. Bought my first Avanti in 1969, and now it has half a million miles on it. Today, I own 15 Avantis. You get into one Studebaker and it leads to another, and another, so I guess I've got the disease. I've been into Oldsmobiles and Fords and Chevys, but I've always stuck with Studebakers.

I did a complete body-off restoration on a 1963 Super Lark R2 convertible, one of only 31 produced, with a floor-mounted automatic. Like the cobbler whose kids don't have shoes, it's sometimes hard to get a car done when you're doing them for everyone else. — *Jon Myer*



## Circular grille badge designates a "full package"

**Super Lark. Documentation makes clear that this one was built by Studebaker engineering and then shipped west to Paxton Products for Andy Granatelli to take to Bonneville and set a slew of records.**



Flats at top speeds so it could be used in magazine advertisements. That was when I realized I had a pretty rare car and decided to give it a correct restoration. I talked to Joe Granatelli [Andy's older brother] about the car's background."

Between his work, illness and the need to move back east, it took nearly 40 years for the restoration to get underway in earnest. During the interim, Jon set out to acquire the Paxton SN-60 and related parts from his network of sources. In terms of the powertrain, it's not completely dead stock. As originally built, the R2 used a forged crankshaft and connecting rods, adding aluminum timing gears, a dual-point performance distributor, enlarged harmonic balancer, heavy-duty water pump and an extended crankshaft snout, the better to spin the Paxton. As delivered, the R2s used large-chamber cylinder heads designed for Studebaker trucks, which delivered a compression ratio of 9.0:1. To all this, Jon added a proprietary Myer electronic ignition built in-house, had a set of aluminum roller rockers custom made by Harland Sharp with a 1.5:1 ratio, port-matched the heads, added 1 15/16th -inch R3 intake valves, and swapped in a more radical R3 camshaft designed by Granatelli with 288 degrees of duration and an aggressive .406-inch lift on both the intake and exhaust sides. He also added cast-iron headers that were designed especially for the R3. He estimates the R2's making at least 300 hp now.

All this was done beginning in 2007, and the car is essentially

restored to driver-plus-plus quality. "When I got it, it had been drag raced and had paperwork for something like 13 different earlier owners. The bucket seats were gone and replaced with an overstuffed bench seat. A friend of mine from L.A. said that he had a buddy who went to work during his college days for Paxton when they went to Bonneville with the Studebakers. His buddy told him there was this little black Lark that they'd run out of there, and then put the original R2 engine back in it. And he bought it to tow a boat with, welded a huge hitch to the frame, and quickly learned it wasn't an ideal car for towing a boat," Jon recalls. "I managed to find the guy, and he said he'd been a gofer for Paxton, and had done the insurance on the car, and still had the paperwork. The serial number matched, and I told him that the hitch was welded on so well that you'd have to cut the car apart to get it off. When I pulled the back seat out, I found out that there were round holes drilled in the floorboard, just inboard of the B-pillar, behind the driver's seat. Much later on, I learned it was for the roll bar. I knew a guy who bought a lot of stuff from Paxton Products, and now, I've got the original roll bar."

Joe Granatelli told Jon that the Super Lark ran about 132 MPH through the measured mile. A Studebaker buddy in California showed Jon a short promotional film, made for either Paxton or Studebaker, and he said the camera clearly pans across the black Super Lark as it's parked next to the Bonneville timing tower. It's his goal to fully restore it to Bonneville specs, including the Halibrand "kidney-bean" style alloy wheels. He's had the Super Lark down the drag strip numerous times before he rebuilt the engine, recalling that he logged 19 runs in one day at Irwindale Raceway in California with a tired powerplant, with a best pass of 13 flat.

Today, it's largely an original car, except for the beefed engine. Some of the paint, especially the roof and cowl, is factory original. As Jon says, "I love this cool little four-speed Lark, and I polished it so many times that I went right through the factory paint. That's why I had to repaint it."

# 1963 STUDEBAKER LARK R2

## 300 HORSEPOWER @ 4,800 RPM (est.)

303-LB.FT. TORQUE @ 5,000 RPM (EST.)  
1/4-MILE: 13.90 SECONDS @ 99.98 MPH\*\*

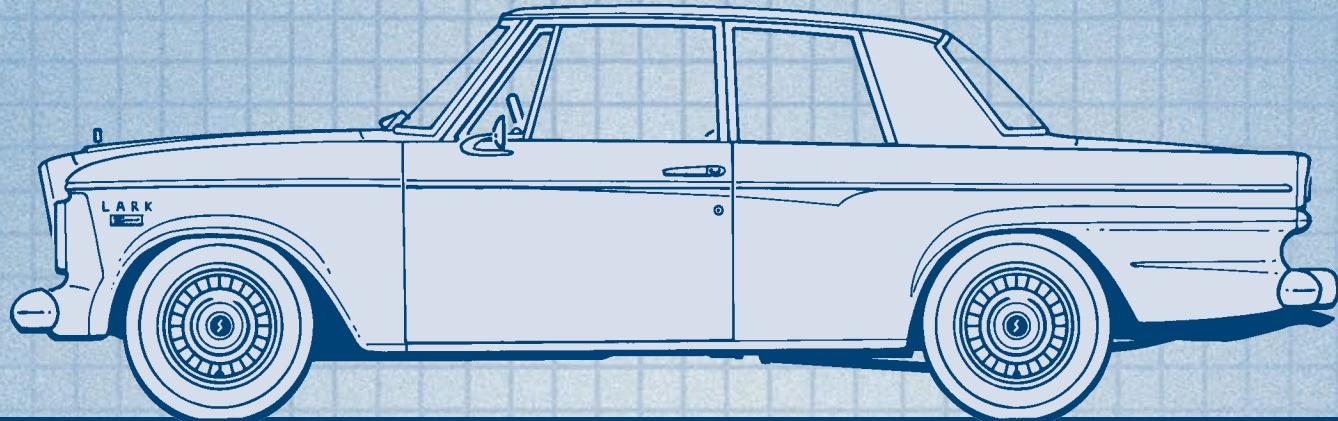


ILLUSTRATION BY RUSSELL VON SAUERS

### SPECIFICATIONS

#### PRICE

Base price .....	\$2,315
Price as profiled .....	\$3,193
Options on car profiled .....	Super Lark package, power steering, AM/FM radio

#### ENGINE

Block type .....	Studebaker OHV V-8, cast-iron block and cylinder heads
Displacement .....	289 cubic inches (currently 289.9 cubic inches)
Bore x stroke .....	3.5625 x 3.625 inches (currently 3.6225 x 3.625 inches)
Compression ratio.....	9.0:1
Horsepower @ RPM .....	300 @ 4,800 (est.)
Torque @ RPM .....	303-lb.ft. @ 5,000 (est.)
Valvetrain.....	Solid valve lifters, Studebaker-Granatelli R3 camshaft, custom Harland Sharp roller rocker arms
Main bearings .....	Five
Fuel system.....	Single Carter AFB 600-cfm four-barrel carburetor, Paxton SN-60 centrifugal supercharger, Carter mechanical fuel pump
Ignition system .....	12-volt, Studebaker distributor (currently Prestolite electronic ignition)
Lubrication system .....	Full pressure, gear-type pump
Exhaust system .....	Studebaker R3 cast-iron headers, dual exhaust, Cherry Bomb mufflers

#### TRANSMISSION

Type.....	Borg-Warner wide-ratio T-10 four-speed manual with Hurst shifter
Ratios .....	1st 2.54:1 2nd 1.89:1 3rd 1.51:1 4th 1.00:1 Reverse 2.61:1

#### DIFFERENTIAL

Type.....	Dana 44 with Twin-Traction limited-slip
Ratio .....	3.73:1

#### STEERING

Type.....	Bendix Linkage, power assist
Ratio .....	20:1
Turns, lock-to-lock .....	4.5
Turning circle.....	37 feet

#### BRAKES

Type.....	Hydraulic; manual
Front .....	11.5-inch Bendix disc
Rear.....	11 x 2.00-inch finned expanding drum

#### CHASSIS & BODY

Construction .....	Steel body on box-section ladder frame
Body style .....	Two-door sedan
Layout .....	Front engine, rear-wheel drive

#### SUSPENSION

Front .....	Independent A-arms, coil springs, Gabriel gas shock absorbers, $\frac{1}{8}$ -inch anti-roll bar
Rear .....	Parallel semi-elliptic leaf springs, traction bars, Gabriel gas shock absorbers, $\frac{1}{8}$ -inch anti-roll bar

#### WHEELS & TIRES

Wheels .....	Stamped steel
Front .....	Front 15 x 4.5 inches
Rear .....	Rear 15 x 4.5 inches
Tires .....	Firestone 500 (currently Mastercraft radial)
Front .....	Front 670-15 (currently 215/70R15)
Rear .....	Rear 670-15 (currently 215/70R15)

#### WEIGHTS & MEASURES

Wheelbase .....	109 inches
Overall length .....	184 inches
Overall width .....	71.3 inches
Overall height .....	55.7 inches
Front track .....	57.37 inches
Rear track .....	56.56 inches
Curb weight .....	3,350 pounds

#### CAPACITIES

Crankcase .....	6 quarts (with filter)
Cooling system .....	18 quarts
Fuel tank .....	18 gallons

#### CALCULATED DATA

Bhp per cu.in. ....	1.00 (est.)
Weight per bhp .....	11.17 pounds (est.)
Weight per cu.in. ....	11.21 pounds

#### PRODUCTION

Studebaker built 325 R2-powered Larks in 1963, of which 53 had the full Super Lark package.

#### PERFORMANCE

0-60 MPH .....	7.8 seconds*
1/4-mile ET .....	13.90 seconds @ 99.98 MPH**
Top speed .....	132.04***

\* Based on a June 1963 Car Life road test of an R2 Lark Daytona with an automatic transmission.

\*\* Based on owner's timeslip.

\*\*\* Based on Andy Granatelli's 1963 USAC-certified flying-mile run in an R2 Lark Regal at the Bonneville Salt Flats.



# THE ULTIMATUM

*Arild Thu's wife put her foot down over this 1970 Boss 429*



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Words and photography by Eric English

**A**lmost everyone immersed in the car hobby knows about "The Ultimatum." While variations on the theme exist, it generally goes something like this: The auto enthusiast of the house has finally pushed a little too far... bought one too many cars, spent too much time in the garage, spent too much money on the latest greatest part or restoration, and on and on. The spouse or significant other has had it, and The Ultimatum is invariably along the lines of, "If you

don't get rid of this thing/start spending time with me/stop spending money, we're done!" Often The Ultimatum is completely reasonable, and sometimes even has the desired effect of causing the afflicted one to reevaluate priorities in life—and strike a new balance.

Arild Thu sure got an ultimatum from his wife, Shirley, in early 2002, but it had a different spin than some of us are used to. Arild had just returned from



Florida with a '68 GT500KR convertible project he found through an online ad. The big-block Shelby had been the victim of an engine compartment fire, and would require considerable time, effort and money to make right. A friend had been trying to get in touch with Arild while he was out of town, and when the two finally connected, the friend explained that a '70 Boss 429 project had just come up for

sale nearby. Arild lives outside of Vancouver, British Columbia, Canada, and the car had been purchased locally when new, the history was known, and it had been disassembled for an intended restoration in the early 1980s. Normally, Arild would have been on the Shotgun Sportsroof like a fly on stink, but this time he knew he'd have to pass since his time and money were committed to the KR.



**The Boss 429 engine is a beast. "Shoehorned" is an apt descriptor here, as the massive cylinder heads required major revisions to the engine compartment at the Kar Kraft assembly line. Boss 429s had different shock towers, control arms and export braces from their standard brethren.**

Despite missing the opportunity for a muscled Mustang he'd always hoped to own, Arild was feeling good about the upcoming KR project. In fact, he'd pretty well put the Boss out of his mind when Shirley coolly asked if he thought the car was a good deal. Arild explained that he thought it was about market value for a disassembled car, but had big potential if muscle car prices continued to climb. Shirley asked Arild what he was going to do, and when he said he figured he'd pass on the deal, she gave him her ultimatum... buy it, or she would!

After Arild picked his jaw up off the floor, he didn't argue, and the very next night found himself looking over an extremely solid and nearly complete Calypso Coral '70 Boss 429. A deal was struck, and Arild found himself with two major projects staring him in the face.

It didn't take long for an action plan to be established. The Boss would be carefully stored for a later time, while efforts on the KR began right away. The Shelby was finished in 2004 with spectacular results, and later sold, while the Boss sat for additional years due to other proj-





ects that popped up in the interim. Finally, in late 2011, it was time for Arild to do what he'd long wanted to do—restore the Boss 429 to Trailered Concours condition.

Through the years, the Boss might have been out of sight, but it wasn't out of mind, and the few bits and pieces that were missing were purchased as they turned up over time. These included items like the factory smog system, distributor and ball joint and motor mount heat shields. Likewise, Arild made important contacts in the fairly small Boss 9 world, and knew who to turn to with questions. Chief among them was Ed Meyer, who Arild praises for his willingness to share his broad knowledge on the subject. Meyer even used Arild's finished Boss for a judging workshop at the 2013 International Mustang Meet in Bozeman, Montana. The car proved to be worthy subject matter, with Meyer finding a few minor discrepancies to discuss with the audience, while being extremely complimentary of the first-rate restoration. Needless to say, Arild took care of the few necessary details after the show was over.

But we're getting ahead of the story, which began with Arild stripping the Boss down to bare metal, making the few necessary body repairs, and turning to Travis Brown at Sharp Touch Restorations in Vancouver, for a new Calypso Coral topcoat. Brown sprayed PPG Concept products, and Arild's son

Tom did the wet sanding and polishing that contributes mightily to the knockout visuals. Arild then began to meticulously reassemble the '70 much as he has on any number of restorations he's done over the years. Tasks like reassembling the interior were much as they'd be on any restoration, but there are extensive nuances to restoring a car with as many factory modifications as a Boss 429. With help from Meyer and others, Arild learned about them all.

For a rebuild of the original engine, Arild turned to Aldridge Motorsports in Portland, Oregon, with the direction to "Make it run the way it was intended." Builder Denny Aldridge took the cue, and breathed a bit of fire into the 429 via a Comp Cams solid roller, I-beam rods and some prudent carb tuning. The engine is backed by the original close-ratio Top-loader four-speed, which Arild rebuilt himself, and the original 3.91-ganged nodular 9-inch. It should be noted that every '70 Boss 429 was equipped with the same spec transmission and rearend assemblies—you could pick the color of a Boss '9, but not much else.

Since completion in 2013, Arild has surely enjoyed the fruits of his labor, winning MCA Gold, though he's not afraid to bang a few gears when the opportunity arises. Just such a moment happened as we moved locations during our photo

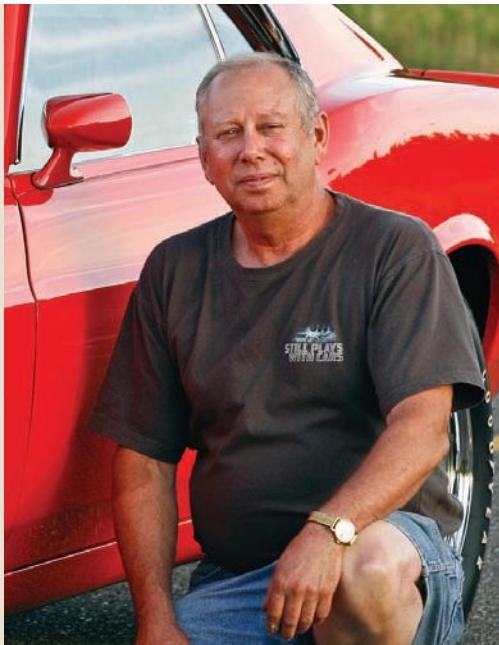
shoot, and we can tell you this Boss feels extremely strong. Likewise, it's worth noting that the car sounds the part. Turns out, we regularly encounter restored muscle cars that sound like they've got a bad case of emphysema. We're not sure if those instances are due to poor tuning, bad gas, stock exhaust, or who knows what else, but it's certainly not the way it is here.

One of Arild's more memorable experiences with his '70 occurred at a show near his hometown. A fellow approached Arild and introduced himself as Terry Friesen, the first person to do a burnout in this very Boss 429. Terry went on to explain that his father owned MSA Motors in nearby Abbotsford back in 1970, where Arild's car was sold new. Terry and his brothers were hot boys at the time, moving and washing cars as needed. With the muscle car iron sitting around in

**Boss 429s were built with a long list of mandatory equipment. For the interior, this included a woodgrain-trimmed dash, high-back bucket seats, full console and "rim-blow" steering wheel. New for '70 was the standard Hurst shifter handle, attached to a Ford linkage below. Another change was a move to standard door panels rather than the molded and woodgrain-trimmed panels that the '69s received.**

## OWNER'S VIEW

**I've been a Mustang owner my entire adult life, my first being a 1969 GT convertible with a 428 CJ and a four-speed. The whole time, I've viewed the Boss 429 as the pinnacle of desirability, not because of the raw performance numbers, but because of the engineering and story of the Boss 429's genesis. I still pop the hood and think 'WOW, look at the size of that thing!' It's truly the definition of 'shoehorning.' When you think of the NASCAR successes the Boss had, it really puts the whole car in perspective—so what if it didn't beat everything on the street? I also think it's one of the nicest looking muscle cars of all time—a great blend of racy looks and subtlety all in one package. I've got to give my wife, Shirley, big props for pushing me to get this car, as well as for going along with my automotive obsession without complaint. I'm a lucky guy!—Arild Thu**



**As in 1969, black-and-chrome 15 x 7-inch Magnum 500s were the standard Boss 429 wheels; these originals have been restored by True Design Wheel.**

1970, the boys occasionally helped themselves, and have the stories to tell! Of course, Arild was thrilled to hear about the early history, and Friesen's day was made as well.

Just 89 of the 499 '70 Boss 429s were painted in the stunning Ca-

lypso Coral—76 with black interior and 13 with white. The in-your-face hue seems the perfect complement to the outrageous powerplant, whose installation occurred at Ford subcontractor Kar Kraft Engineering in Brighton, Michigan. It's no

wonder the biggest Boss is among the most heralded and historic of Mustangs ever, and with plenty of help and perseverance, Arild has built himself one of the best. And to think, it's all because Arild's wife delivered her sage ultimatum! 



# 1970 FORD MUSTANG BOSS 429

## 375 HORSEPOWER @ 5,600 RPM

410-LB.FT. TORQUE @ 3,400 RPM

1/4-MILE: 14.08 SECONDS @ 106 MPH\*\*

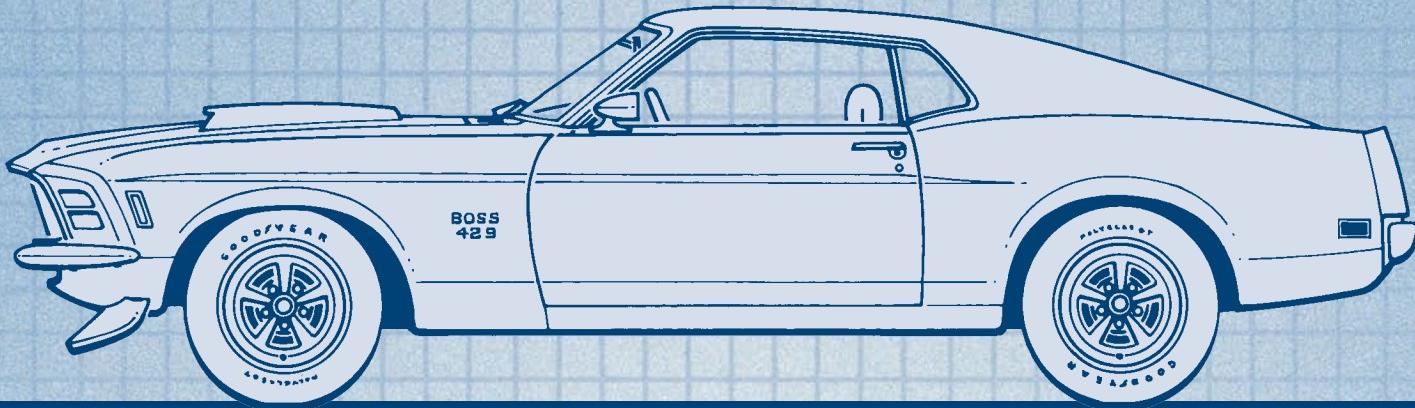


ILLUSTRATION BY RUSSELL VON SAUERS

### SPECIFICATIONS

#### PRICE

Base price .....	\$2,872
Price as profiled .....	\$5,105.95
Options on car profiled .....	Boss 429 4V eight-cylinder engine, \$1,208; four-speed manual transmission, \$259; Drag Pack, \$155; Convenience Check Group, \$32; electric clock, round, \$16; Rim-Blow deluxe steering wheel, \$39; console, \$54; power steering, \$95; power front disc brakes, \$65; AM radio, \$61; Décor Group, \$78; deluxe seatbelts/warning light, \$15; competition suspension, \$31; tachometer and trip odometer, \$54

#### ENGINE

Block type .....	Ford Boss 429 OHV hemispherical V-8, cast-iron block, cast-aluminum cylinder heads
Displacement .....	429 cubic inches
Bore x stroke .....	4.36 x 3.59 inches
Compression ratio .....	11.7:1
Horsepower @ RPM .....	375 @ 5,600
Torque @ RPM .....	410-lbs.ft. @ 3,400
Valvetrain .....	Mechanical-tappet camshaft, .458/.509-inch lift, 300 degrees duration Single Holley 735-CFM four-barrel vacuum-secondary carburetor; mechanical pump
Fuel system .....	Full-pressure, wet-sump, gear-driven pump
Lubrication system .....	12-volt
Electrical system .....	Dual with transverse rear muffler

#### TRANSMISSION

Type .....	Ford "Toploader" four-speed manual; 11-inch clutch
Ratios .....	1st 2.32:1 2nd 1.69:1 3rd 1.29:1 4th 1.00:1 Reverse 2.32:1

#### DIFFERENTIAL

Type .....	Ford 9-inch housing and third member assembly, with Traction-Lok limited-slip
Ratio .....	3.91:1

#### STEERING

Type .....	Recirculating ball gearbox with linkage-mounted hydraulic assist
Ratio .....	16.1:1
Turns, lock-to-lock .....	4

#### TURNING CIRCLE

38 feet

#### BRAKES

Type .....	Hydraulic, power assisted
Front .....	11.3-inch disc

Front .....

Rear .....

10 x 2.5-inch drum

#### CHASSIS & BODY

Construction .....	Unit-body, welded steel
Body style .....	Two-door, fastback coupe
Layout .....	Front engine, rear-wheel drive

#### SUSPENSION

Front .....	Independent with modified upper and lower control arms, extra-heavy-duty coilsprings, heavy-duty tubular hydraulic shock absorbers, heavy-duty spindles and $\frac{1}{2}$ -inch anti-roll bar
Rear .....	Live axle mounted with parallel, multi-leaf springs, staggered heavy-duty tubular hydraulic shock absorbers and $\frac{5}{8}$ -inch anti-roll bar

#### WHEELS & TIRES

Wheels .....	Chrome Magnum 500
Front .....	15 x 7 inches
Rear .....	15 x 7 inches
Tires .....	Goodyear Polyglas GT, bias-belted
Front .....	F60-15
Rear .....	F60-15

#### WEIGHTS & MEASURES

Wheelbase .....	108 inches
Overall length .....	187.1 inches
Overall width .....	71.9 inches
Overall height .....	51 inches
Front track .....	59.3 inches
Rear track .....	58.5 inches
Curb weight .....	3,750 pounds

#### CAPACITIES

Crankcase .....	8 quarts
Cooling system .....	22.5 quarts
Fuel tank .....	20 gallons
Transmission .....	4 pints

#### CALCULATED DATA

BHP per cu.in. ....	0.874
Weight per BHP .....	10 pounds
Weight per cu.in. ....	8.74 pounds

#### PRODUCTION

Ford produced 499 Mustangs with the Boss 429 engine for the 1970 model year; 89 were painted Calypso Coral.

#### PERFORMANCE

Acceleration*	
0-60 MPH .....	7.1 seconds
0-100 MPH .....	13.6 seconds
1/4-mile ET .....	14.08 seconds @ 106 MPH**
Top speed .....	118 MPH

\*Source: A July 1969 Car Life test of a 1969 Mustang Boss 429.

\*\*Source: A January 1970 Car Craft test of a 1970 Mustang Boss 429.

# MUSCLEPALOOZA

XXI

*Simply the greatest  
performance gathering  
anywhere*



**By Jim Donnelly**

Photography by the Hemmings staff

**t was a combination of factors,** we've got to figure. First, we were seemingly just weeks removed from a brutally snowy winter. That meant a lot of pent-up passion among car owners whose muscle rigs hadn't seen daylight since last Halloween. The weather was perfect, springtime-seasonable with glowing sunshine. And it was a holiday weekend, Memorial Day, which marks the unofficial start of summer.

That's the formula for putting on a great car show. And we're both pleased and honored to announce that the 21st edition of Musclepalooza shattered all previous records for attendance, both cars and people. More than 1,200 muscle cars crammed the pit and

spectator areas at Lebanon Valley Dragway in West Lebanon, New York, with an unprecedented 800 of them awaiting judging in the HMM car show. Up in the stands, some 4,000 spectators watched a day of racing that included the F.A.S.T. muscle car drags, nostalgia cars and bracket competition galore. The lines at Lebanon Valley's concession stands stretched nearly out of sight all day long. You couldn't have squeezed another car onto the property if you tried to shove it through the gate with a bulldozer. It was a glorious day, and we were proud to host it.

With the crush of cars at Lebanon Valley, the editorial staff of Hemmings scrambled hard to ensure that



all show cars were properly judged. That resulted in Publisher Jim Menneto and Editor-in-Chief Terry McGeen handing out a total of 29 awards, as the winners smoked it down the return road to the roaring delight of onlookers. At the end of a busy day, Best of Show went to the luscious 1966 Pontiac GTO entered by Pontiac collector and authority Paul Menin of Ashley Falls, Massachusetts, a stellar automobile that also copped first place in the Pontiac category.

Drag racing continued all day, with a robust field on hand. The F.A.S.T. (if you've never been to Musclepalooza, it stands for Factory Appearing Stock Tire) national ET record remained intact, but competition

among these concours-level muscle cars, with unlimited internal engine mods, was tight and quick all day. Add in the bracket battlers, and the action kept going for the entire length of the show.

The day was a blast, and we at Hemmings can't wait to do it again. Plan to get yourself and your ride to Lebanon Valley over Labor Day weekend for Musclepalooza XXII.

We'll leave you with this caveat: Get there early. The turnout was so big for XXI, we finally had to close the gates, because the place was simply out of room. Why not come and join the big party at the Valley of Speed in upstate New York?



For the past several seasons, we've been presenting awards for late-model performance cars under the GM, Mopar and Ford banners. This time around, Maurice Devin of Windsor, Connecticut, took Runner-Up with his 2013 Shelby GT500.



HMM Editor Terry McGean addresses the winners of our car show prior to the awards presentation when the winning cars drive down the Lebanon Valley Dragway return road before the crowd.



During the awards presentation on the return road, winners are encouraged to shed some celebratory rubber. Sean Trestick put on a good show with his '90 Rick Mears edition Corvette.



Syd Goldstein's 427-powered 1966 Caprice wagon is a regular at Musclepalooza in the show, where it's a previous award winner, and on the track where it runs 13s all day long. He usually drives the car from New Rochelle, New York, shows and races it, then drives it home. This year, the Caprice's 12-bolt axle broke and the car had to be hauled away on a flatbed. Syd left a note in the car's window assuring us he'd be driving back in the fall: "Broken, see you in September!"



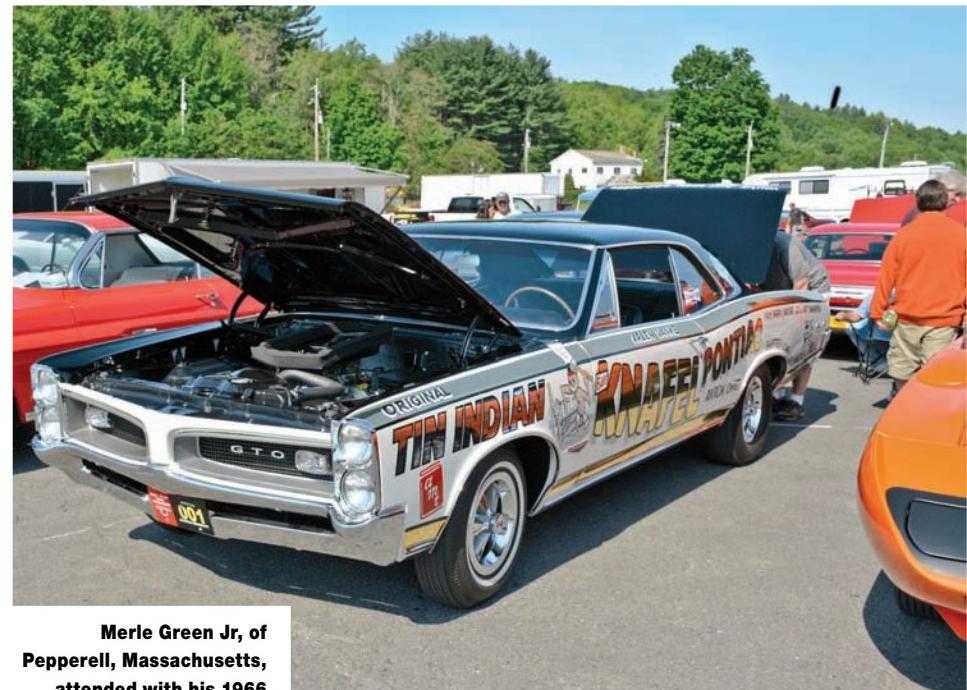
Late-model muscle cars are becoming a mainstay at Musclepalooza, in sharp contrast with our early events more than a decade ago. In the staging lanes a 2013 ZL1 convertible prepares to square off with an SRT 392 Challenger behind a Camaro SS and a Shelby GT500. 12-second-ETs are commonplace among this crowd.



Dave Mamulski took the trophy for Favorite Dodge for his impeccably restored 1963 Polara 500 convertible with its 426 Max Wedge engine – one of just 28 convertibles.



**Andy Narzinski of Schaghticoke, New York, just bought this Burgundy 1969 Camaro Z/28 and drove it out to Musclepalooza for its debut appearance. The car was a standout at the show, boasting optional bumper guards, a cowl hood and ivory standard interior.**



**Merle Green Jr., of Pepperell, Massachusetts, attended with his 1966 Pontiac *Tin Indian* GTO famously driven by Arlen Vaneke. The car's true identity had been lost to time until Merle began its restoration in the Eighties.**



**Tim Zammiello, of Wappingers Falls, New York, has previously won awards at Musclepalooza with his 1966 Oldsmobile 4-4-2 and his 1970 Torino GT convertible. This time he brought this very nice 1971 Corvette convertible with an LT-1 and a four-speed.**

# 2015 MUSCLEPALOOZA XXI CAR SHOW AWARDS

## BEST OF SHOW

1966 Pontiac GTO  
Paul Menin, Ashley Falls, Massachusetts

## BEST ENGINE

1969 Plymouth Road Runner  
Frank and Jill Chicherchia, Airmont, New York

## BEST PAINT

Ford Torino GT  
Rick Devine, Southwick, Massachusetts

## FAVORITE AMC

1970 Javelin SST  
Don and Christine Stark, Springfield, Massachusetts

## 2ND PLACE AMC

1969 AMX  
Charlie Rizzo, Whitestone, New York

## FAVORITE BUICK

1970 GSX  
Steven Perry, Carmel, New York

## 2ND PLACE BUICK

1987 Grand National  
Sandy Collier, Northfield, Massachusetts

## FAVORITE CHEVROLET

1969 Chevelle SS 396  
Brian and Doug Potter, Fishkill, New York

## 2ND PLACE CHEVROLET

1969 Camaro SS/RS  
Craig Phillips, Clinton Corners, New York

## FAVORITE DODGE

1963 Polara 500 convertible 426 Max Wedge  
Dave Mamulski, Florence, Massachusetts

## 2ND PLACE DODGE

1968 Dart GTS  
Gary O'Brien, Agawam, Massachusetts

## FAVORITE FORD

1966 Fairlane 500 R-code 427  
Bob Kleemann, Somers, New York

## 2ND PLACE FORD

1963 Fairlane K-code  
John Viera, Taunton, Massachusetts

## FAVORITE MERCURY

1971 Cougar XR7  
Rich Kellogg, Brookfield, Connecticut

## 2ND PLACE MERCURY

1968 Cougar XR7

Dan Hannaburgh, Red Hook, New York

## FAVORITE OLDSMOBILE

1969 Hurst/Olds

Sal Barberi, Brewster, New York

## 2ND PLACE OLDSMOBILE

1972 4-4-2

Larry Koulik, Plains, Pennsylvania

## FAVORITE PLYMOUTH

1970 'Cuda AAR

Gonzo Morillo, Hartford, Connecticut

## 2ND PLACE PLYMOUTH

1971 Duster 340

John Marshall, Canaan, Connecticut

## FAVORITE PONTIAC

1966 GTO  
Paul Menin, Ashley Falls, Massachusetts

## 2ND PLACE PONTIAC

1967 GTO  
Dean Kelly, Berlin, Connecticut

## FAVORITE LATE MODEL FORD

2009 Roush P-51  
Rob Sadler, New Milford, Connecticut

## 2ND PLACE LATE MODEL FORD

2013 Shelby GT500  
Maurice Devin, Windsor, Connecticut

## FAVORITE LATE MODEL GM

2014 Chevrolet Camaro ZL1  
Dan Bowers, Latham, New York

## 2ND PLACE LATE MODEL GM

1990 Corvette Rick Mears  
Sean Trestick, Schenectady, New York

## FAVORITE LATE MODEL MOPAR

2008 Dodge Viper  
Dylan Bond, Massachusetts

## 2ND PLACE LATE MODEL MOPAR

2004 Charger Super Bee  
Joel Del Valle, Port Chester, New York

## FAVORITE MODIFIED MUSCLE

1961 Pontiac Tempest  
George Munsterman, Fishkill, New York

## 2ND PLACE MODIFIED MUSCLE

1970 Chevrolet Chevelle convertible  
Gary Korzon, Beacon Falls, Connecticut

## NATIONAL PARTS DEPOT F.A.S.T. SERIES RESULTS

### F.A.S.T. winner:

#### SCOTT TIEMANN

1968 Pontiac Firebird 400

### F.A.S.T. Runner Up:

#### ED COOK

1963 Plymouth Max Wedge

### Factory Stock Winner:

#### DAVE DUDEK

1968 Dodge Super Bee Hemi

### Factory Stock Runner Up:

#### SCOTT MACKENZIE

1969 Plymouth Road Runner

### Shoot-Out Winners:

#### FREDDY RODRIGUEZ

1968 Chevrolet Nova

#### RICK MAHONEY

1968 Plymouth Road Runner Hemi

#### TOM CANNON

1971 Plymouth Duster 340

#### CHARLES LOMBARDI

1963 Chevrolet Impala 409

#### CHUCK LOMBARDI

1973 Pontiac Firebird Formula SD 455

#### BILLY ATWOOD

1970 Plymouth GTX



**Right: Frank and Jill Chicherchia of Airmont, New York, took Best Engine Bay with their A12 Road Runner, a former F.A.S.T. race car.**



**Bill Crovo wheeled in from Hampstead, New Hampshire, with this modified 1995 Buick Roadmaster wagon. He says its LT1 350 now makes 425 hp and the car has been driven 190,000 miles.**



**The bracket drags always bring out a strong field of racers, in a variety of configurations. This was the hardest launching Mustang II we've seen in a long time.**



**There aren't many places in upstate New York where you can see a 1958 Chrysler 300D cruising past a row of late-model Shelby Mustangs (left) and a 2015 Dodge Challenger Hellcat (right). Be sure not to miss the fall running of Musclepalooza!**



**Below: Kenny Pascoe from Poughkeepsie, New York, a previous Musclepalooza winner, showed up with this scruffy looking 1966 Nova SS powered by a 350-hp L79 327. He said the car has been driven 690 miles from new and wears all of its original paint. The car has been sympathetically restored to make it driveable and safe while preserving as much of its originality as possible.**



# 1968 Chevrolet Camaro SS/RS 396

**Words by Mike McNeese**

Photography by Jeff Koch • Restoration photography courtesy of Gus Arrellano

G

## **us Arrellano was one lucky kid.**

His high-school graduation present? A trip to Courtesy Chevrolet in El Paso, Texas, where his dad, Augustine, wrote a check for a brand new 1968 Camaro. The elder Arrellano even allowed his son to pass over the fuel-stingy six-cylinders, as well as the 327 V-8s, and order the hot 350 available only with the Super Sport package.

Gus must've been the envy of his pals, bragging about the Camaro SS 350 which would be arriving any

day with his name on it. You can almost imagine him lingering over the spec page in the brochure—10.25:1 compression, four-barrel, hydraulic cam and dual exhausts with resonators—dying to hear what his new small-block would sound like and to feel how effortlessly it would burn the back tires.

Unfortunately, when the car arrived, there had been a major mix-up. The car Gus ordered was probably shipped somewhere else and in its place





at Courtesy Chevrolet sat an SS/RS 396 Camaro in Island Teal with a white stripe.

Yup, Gus Arrellano was one lucky kid. He was also one thrilled kid. Thrilled about the concealed headlamps, the extra brightwork and, of course, about the 46-cubic-inch upgrade to a Mark IV big-block engine.

The elder Arrellano wasn't as thrilled. He'd intended to buy his son a nice Camaro—not the ultimate Camaro. Who was going to pay the difference?

No problem, said the folks at Courtesy Chevrolet, living up to their name. They stood by the price quoted for the SS 350. So, Gus drove home in his brand new big-block Camaro, loaded with all the fixins', for \$3,250.

Soon, Gus began modifying the Camaro to match what all the guys in the magazines were doing: headers, slotted mags and spring shackles to help clear

**At left, the Camaro circa 1975 rolling on slot mags and sporting new paint. Above, years later, with a custom stripe on the nose.**



# RESTORATION PROFILE



1



2



3



4



5



6

- 1.** Before the car was completely torn down, owner David Silva tackled some of the dirty work, such as brakes and a front suspension rebuild.
- 2.** The 396 was then hoisted out of the engine bay. The aftermarket anti-sway bar was one of those items marked for replacement with original parts during the makeover **3**. The original 12-bolt, 3.07:1 rear axle and springs were removed for cleaning and painting. **4**. Several years back,

David and his father rebuilt the 396, so it was painted and readied for reinstallation. More recently, he removed the engine from the car again and had it professionally rebuilt. **5**. David handled the restoration of many of the car's subassemblies, like this headlamp door and actuator. **6**. As a roller, the Camaro was shuttled off to Schofield Kustoms in 2005 for disassembly and paint work that would take about 18 months.

those big tires, an aftermarket steering wheel and fresh paint to cover that teal that he was never crazy about.

By 1974, Gus was ready to sell his graduation present Camaro. He was hoping to get \$1,000, but when his uncle and his cousin, David Silva, expressed an interest in buying the car, he dropped the price to a mere \$800, paying it forward, perhaps, for the great deal he and his dad had received.

David, who still owns the car today, couldn't believe his good fortune as he drove the car to high school during his senior year in 1975, and still enjoys recounting how he wound up owning this very desirable Camaro.

"In July of 1974, my dad went to El Paso to work on a project. He went over in the evening to visit my uncle's family and learned that Gus was selling the car," David said. "My dad asked the price, and when my cousin said \$800, Dad paid them for the car and brought it home. When Dad got back home he called me outside and showed me the car. I couldn't believe it, here was Gus's car, the one he would take me for a ride in when I was just a kid. I asked my dad what he was doing with the car, and he said if I wanted it, he would sell it to me for \$800!"

If you were a teenage boy with a big-block Camaro in the 1970s, especially one with all the right aftermarket touches, you were a school-parking-lot celebrity, and you had a target on your back as well.

"It was so cool to drive the Camaro my senior year

of high school in 1975," David said. "Everyone in town wanted to drag race me, but I couldn't bear the thought of blowing up the engine or wrecking the car."

In 1975, David and his father tore down the 396 and gave it an overhaul: The piston skirts were knurled to "expand" them in their bores, the cylinders honed and the piston rings replaced. They also treated the Camaro to a fresh coat of blue paint and a custom stripe on the front end.

But, figuring he'd need money for college, David tried to sell the Camaro one year later. Fortunately, the only interested buyer was a friend whose father thought that teenagers and big-block Chevrolet engines didn't mix.

"I started college in the fall of 1975, and I parked the Camaro in my dad's garage," David said. "I tried to sell the car in 1976 because I needed money for college. My friend Robert came over with his dad to look at the car, but when his dad lifted the hood and saw the engine, he said, 'That is a big-block. You will kill yourself in this car.' Then he slammed the hood and left."

As often happens, the Camaro sat where it was last parked for more than a decade. But in this case, that parking spot was inside a garage in the dry Southwestern climate. While the car had been subject to the rigors of daily driving, piloted exclusively by young guys, it survived the years with its original sheetmetal entirely intact. No rust and no major collision damage.

In 1989, David's dad called and reminded him that he'd left the Camaro in his garage for about 13

# 1968 CHEVROLET CAMARO SS/RS 396



7



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9



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11



12

**7.** At Schofield, the Camaro was torn down to a shell, then all of the paint was removed with chemical stripper. **8.** The body required no significant metal work. Here, the shell is in high-build primer sprayed with guide coats to aid in the block-sanding process. **9.** Not aftermarket, not NOS, not even repaired originals—the fenders, doors, hood and decklid are original and uncut. **10.** Once the engine was painted and

the transmission treated to new seals and gaskets, the assembly was reinstalled in the subframe and then reattached to the body. **11.** Again on its wheels, the Camaro's body was shot with Sherwin Williams urethane, pictured here before the clear was applied. **12.** It's been many years in the making, but this two-owner, rust-free Camaro SS/RS 396 is headed back to the way it looked in 1968.

years, and it was time to come take it home.

"You have a house now," he told me. "You need to take your car home. I need my garage!" David said. "Talk about a barn find—I found my own car!"

With the Camaro back in his possession, David began undoing some of the modifications that had been made to the car over the years.

"I removed the rear spring shackles and removed the slotted mags," he said. I also added the Rally wheels and added the steering wheel. My dad and I redid the interior. He talked me into doing it ourselves, and it came out really great."

In 2005, David decided to attempt a complete restoration of the Camaro, returning it to the condition it was in when his cousin first saw it on the lot at Courtesy Chevrolet. Step one for David was to find a body and paint shop that he could trust.

"Since it was a numbers-matching car, with all-original metal, I wanted to take it to a good shop, and I was lucky to find Bill Schofield and Schofield Kustoms," David said.

David removed the engine and transmission, exterior trim and interior at home. He also pulled the rear axle, installed seals and bearings, and cleaned and painted the housing and springs. Up front, he replaced the high-wear suspension and steering parts.

"I took the car apart at home and did all of the work I could," David said. "With the car rolling, but the engine and interior still out, I took it to Bill's shop."

Schofield Kustoms tore the Camaro down from a roller to just a body shell, then used chemical stripper to remove the layers of paint the car had accumulated over the years.

"The car had never been taken apart, so Bill took a lot of measurements beforehand," David said. "They measured all the gaps between the fenders and the doors, as well as the hood, so that when they put it back together, the car was the way it was. He bagged and marked all of the hardware so that nothing got mixed up."

Remarkably, what Schofield didn't have to do was any rust repair, because the Camaro had spent its entire life in New Mexico and much of the time was stored indoors.

"It was pretty exciting because Bill told me that often, once they strip a car, they have to call the customer and tell them that the job is going to be a lot more involved because there is no metal left," David said. "But he actually called and said this body is perfect. He was really shocked about that."

Schofield shot the car with multiple coats of Sherwin Williams high-build primer and blocked the car using guide coats to ensure the panels were straight. The Camaro was then finished in Sherwin Williams base and clear and reassembled.

While the body was taking shape, David was attending to details at home, including painting the engine as well as refinishing and rebuilding a host of the Camaro's subassemblies.

# ✖ RESTORATION PROFILE



**Despite years of indoor storage, the interior was aged, so the carpet and upholstery were replaced in the 1990s, but they still look great. The dash pad and armrests are restored originals.**



## OWNER'S VIEW

**My cousin Gus (the Camaro's original owner) saw the car for the first time since the restoration was completed in the spring of 2010. He got very emotional and said it looked just like it did when he picked it up in 1968. I threw the keys at him and told him to take it for a drive. He did, and what a moment that was.**

—David Silva



"There were a lot of small detail items I needed to work on, like the headlight actuators and the parts for the smog system," David said.

The original dash pad and armrests were shipped off to Just Dashes to be restored in the correct grain and color. Even though aftermarket parts are available, David had his mind set on reusing the originals.

"It was expensive," he said. "But they did a terrific job."

The engine and transmission were reinstalled in the Camaro subframe at Schofield's shop and then reunited with the body. The original glass was reinstalled, but the windshield was replaced with a date-coded reproduction—most of the car's exterior trim is original and was also reinstalled.

Since new, this Camaro has been in a constant, though sometimes glacially slow, state of change. After the most recent restoration was finished, David began showing the car and making alterations based on advice from experts and his own research.

"It's still a project in progress," he said. "You go through the restoration, and after it's all done, you realize some things that weren't right. I'm actually in the process of redoing some of those things now."

Recently, David pulled the 396 and sent it to Edward's Engines in Albuquerque for an overhaul.



"The engine sat so long and has had a lot of dry starts. So they tore it down and they are installing new valves and springs in the heads, boring the block to get out some of the scratches from the pistons that were knurled back in the 1970s. They're going to reassemble it and balance it too."

While the engine is out, David is repainting the engine compartment in shades that more closely replicate the factory finishes. "The engine compartment was a little glossy, so Jason Schofield is going to reshoot some of the black in there," he said.

With each step, this Camaro, which arrived as a mistake, and almost by accident managed to remain with one family, gets closer to full circle.

"My whole goal is to get it as close as I can to how it rolled out of the factory. I'm installing the original intake and the distributor this time, too, trying to get it back to that next level of originality. It's important to me because it just wasn't a car that I went out and bought and restored. It's been a big part of my life, and every year I grow with it because it just keeps getting better and better." 

# 1968 CHEVROLET CAMARO SS/RS 396



The car's original smog equipment was restored and refitted, but the carburetor is a replacement, as the original Q-Jet was lost at some point. The intake pictured here is an Edelbrock part painted to look original. It, too, is slated for replacement.



# 1964 Oldsmobile Jetstar I

By Thomas A. DeMauro

Photography by Jeff Koch

**T**he intriguing story of how the 1964 Jetstar I came to be actually begins with its sister model the Starfire and Pontiac's Grand Prix. Oldsmobile had reintroduced the Starfire nameplate in early '61 as a top-of-the-line convertible on GM's 123-inch wheelbase B-body to compete with Ford's Thunderbird and Chrysler's 300 in the personal/luxury/performance car market.

This halo model contained the best Olds had to offer as standard equipment, and its price reflected it. Amenities included a 330-hp 394-cu.in. V-8; Hydra-Matic transmission; power steering, brakes, seat and windows; a "gleaming spear of aluminum" along each side; bucket seats; leather upholstery and a console with a tach and floor shifter. By model year-end, 7,800 were sold.

For 1962, styling was updated and the Starfire two-door hardtop debuted, but additional competition arrived from within GM—the Pontiac Grand Prix and

mid-year-entry Buick Wildcat—and from Chrysler fielding a non-letter-series 300 at a lower price point than the 300H. Regardless, Starfire sales surged to 41,988.

The B-body was handsomely redesigned again for 1963, and the Starfire and Grand Prix received a new formal roof with a concave backlight not shared with other GM models. However, both were now vying for sales in an even more crowded market thanks to the new Buick Riviera. Starfire sales plummeted to 25,890, but the Pontiac Grand Prix, with fewer standard features, less external ornamentation and a lower price, increased in sales to 72,959 from 30,195.

Entering 1964, the luxury-laden Starfire's \$4,100-plus sticker price (\$31,451 in 2015) still placed it at mid-pack below the more expensive Thunderbird and Riviera, but above the 300K, Grand Prix, 300 and Wildcat. Given



ILLUSTRATION BY JUDI DELL'ANNO

## ENGINE

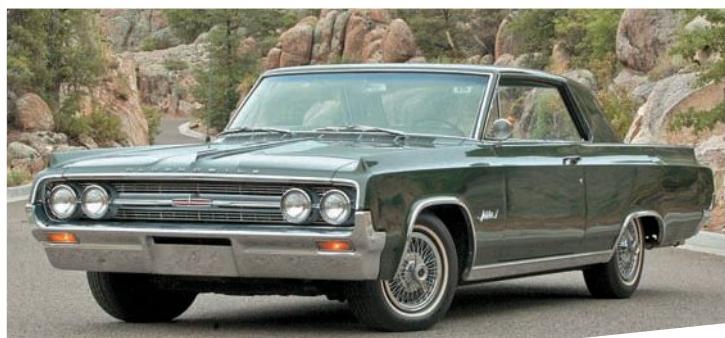
The 345-hp 394 was standard in the Jetstar I, Starfire and Ninety-Eight Custom Sports Coupe and optional in the Super 88 and the Ninety-Eight. Despite a 4,780-lb. test weight, an A/C-equipped Jetstar I posted a 16.3 quarter-mile ET at 86-MPH for Car Life magazine.

## BRAKES

Like the Starfire, the Dynamic 88 and the Ninety-Eight, the Jetstar I was equipped with four-wheel, 11-inch-diameter, cast-iron, drum brakes standard. Unlike the Starfire, however, power assist was optional.

## TRANSMISSION

A three-speed manual was standard. Though the optional Hydra-Matic designs were the same, when comparing the M35 to the heavy-duty M37 automatic, the latter featured higher temperature seals, a higher capacity oil pump and more durable clutches.



This Jetstar I retains its original Jade Mist paint. The wire wheel covers with simulated knock-offs were an extra-cost option.



## INTERIOR

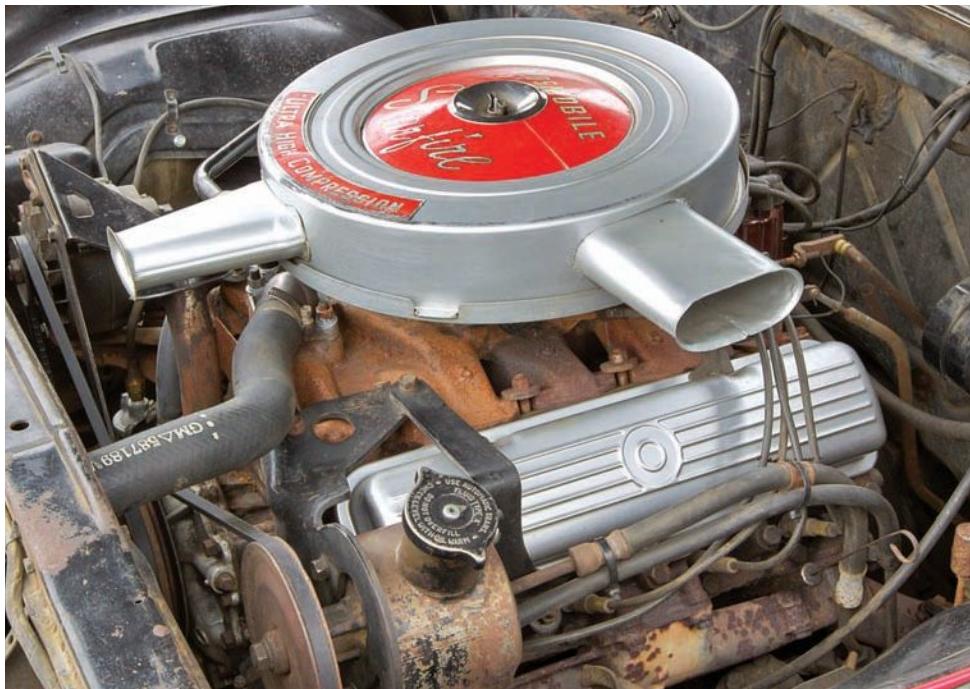
Bucket seats and a center console with a tach added sporty flair. According to Oldsmobile historian Kurt Shubert, when the standard column-shifted three-speed transmission was retained, the console was fitted with a block-off plate over the shifter area.

## CHASSIS

Standard manual steering features a 24:1 ratio and 6.1 turns-to-lock. Optional power steering reduces turning effort via an engine-driven hydraulic pump and cuts turns to lock to 3.8 via its 17.5:1 ratio.

## BODY

The concave backlight was specific to Jetstar I and Starfire and Pontiac's Grand Prix. Jetstar I had less body brightwork and no convertible, and the bright tri-point chrome trim early-built Starfires wore on the inner headlamps was not on the Jetstar I.



the success of the Grand Prix, Olds introduced the Jetstar I to compete with it and the base 300 on content and price at about \$3,600 (approximately \$27,000 in 2015).

While it retained the 345-hp 394 engine, dual exhaust, suspension, concave rear window, bucket seats, console and tach of the Starfire, the Jetstar I was otherwise decontented. There was less exterior bright trim and Morocceen (vinyl) replaced the leather upholstery. Power steering, brakes and windows, as well as the Hydra-Matic transmission, were now extra-cost options, which reduced not only the price but also vehicle weight by about 120 pounds. Not surprisingly, adding those options to the Jetstar I returned the price to near Starfire level.

To confuse matters further, the name Jetstar was also applied to a new entry-level series of Oldsmobile 88s. The Jetstar 88 was significantly different from the Jetstar I, employing components from the midsized F-85 line, such as the new 245-hp 330-cu.in. V-8 engine and small 9.5-inch drum brakes as standard, and the two-speed Jetaway automatic optional. It also featured the standard coupe roof, a bench seat, cloth and Morocceen upholstery and a just-under-\$3,000 base price.

The subject of this Buyer's Guide is the 1964 Jetstar I, and our example

**Above, left:**  
**This 394-cu.in. engine is original. The stock engine color is red with "bright" single-snorkel air cleaner (the owner added the second snorkel) and rocker covers.**

is owned by Bob Ryback. It was Oldsmobile's entry into the "medium-priced" personal/luxury/sporty car field and sold 16,084 units to the Starfire's 16,163. Combining those sales figures represents a 24 percent increase over the Starfire's 1963 total, yet it's apparent that Jetstar I sales came primarily at the expense of the Starfire. The Jetstar I returned for 1965—its last year. Despite an all-new exterior design, 425-cu.in. engine and Hydra-Matic and an optional four-speed, only 6,552 were sold.

## ENGINE

The 10.5:1-compression 394-cu.in. V-8 has a 4.125/3.688-inch bore/stroke, and its cast-iron block contains a forged-steel crank and connecting rods and cast-aluminum pistons.

Its hydraulic camshaft lifts the 1.875/1.562-inch valves .444/.435-inch in the "Fire-Swirl" combustion chambers, thanks to 1.8:1-ratio shaft-mounted rockers. Rochester's 4GC carburetor is bolted to a cast-iron dual-plane intake manifold, and a breaker-point ignition system is employed. Cast-iron exhaust manifolds originally fed into a special Jetstar I/Starfire dual exhaust system with chambered sections in place of traditional mufflers.

**What to watch for:** The 394 was



a robust engine, as evidenced by our subject Jetstar I's accrual of 117,000 miles over 51 years of service. However, this Olds can be susceptible to oiling system issues that are exacerbated by poor maintenance or disuse.

The code and Engine Unit Number are stamped on a machined pad on the center exhaust ports of the driver-side cylinder head—"J" followed by a number beginning with 5 (ie."500001") and an "S."

## TRANSMISSION

An 11-inch-diameter clutch was used with the standard, column-shifted, M11 three-speed manual transmission.

The optional M35 Hydra-Matic transmission and the M37 heavy-duty version were described as "four-stage" units even though they have three gears, because the "Accel-A-Rotor" multiplies the torque at break-away to a lower-than-first-gear-ratio of 3.32:1. As speed increases, the extra torque multiplication wanes, and the actual first-gear ratio of 2.93:1 is realized.

**What to watch for:** An M11 is durable enough, though you are not likely to find a Jetstar I so equipped, as Oldsmobile historian Kurt Shubert reports that only 112 were produced. The aluminum-case Hydra-Matic, also referred to as Roto Hydra-Matic and even the slang term "Slim Jim" for its compact size, has never been known as a pillar of durability, but they can be properly built to last.

The manual transmission doesn't have a code or serial number on it—just a build date, but the Hydra-Matic code and serial number can be found on a plate attached to the driver side of the case. Its prefix is "OB"; the plate is dark green and reads, "OB64-1001."

# 1964 OLDSMOBILE JETSTAR I

## CHASSIS

Olds' 123-inch wheelbase "Guard Beam" perimeter frame features torque boxes, and the track is 62.2-inches front and 61.1 inches rear. Independent front suspension features unequal-length upper and lower control arms and ball joints to connect them to the steering knuckles. A 1.062-inch anti-roll bar up front reduces body lean, and coil springs produce ride rates at the wheel of 89 lb.in. front and 100 lb.in. rear. A four-link design locates the solid rear axle, and shocks control wheel undulations.

Drum brakes were standard, and power assist and metallic linings were optional.

A 9.25-inch ring gear (also referred to as 9.3-inch) Hotchkiss-type rear came standard with 3.42:1 gears. G80 Anti-Spin axle, a clutch-type limited-slip, was available as an extra-cost option.

**What to watch for:** Like all vintage vehicles, rust and accident damage are the enemies. The frame side rails and torque boxes are rust-prone areas. Evidence of previous accident damage may be revealed by pull marks at the access holes.

The ratio code number is stamped on the front lower passenger-side flange of the carrier. Anti-Spin differentials have an "L" after the number and a lubrication tag for Anti-Spin held on by one of the carrier retaining bolts.

## BODY & INTERIOR

Though the Jetstar I shared its body and roof with the Starfire, trim differs. The Starfire's grille is divided into four large sections via a crossbar—essentially a stylized extension of the Oldsmobile emblem that's in the center. Conversely, the Jetstar I shared its grille with the 88s. It's split into an upper and lower section via a single horizontal bar with a wide emblem at the center, and the upper and lower grille patterns consist of bright, elongated rectangles.

Bright trim runs along the top of the fenders, doors and quarters from stem to stern on the Starfire, but on the Jetstar I it's only on the rear quarter panels. Both models feature bright wheelwell and rocker moldings, but the latter on the Starfire are vertically



Morocceen-covered bucket seats and the rest of this original dark green interior have been preserved for over five decades.



ribbed on the lower sections and taller overall, requiring separate pieces to cover the bottom of the doors. The Starfire also has bright trim on the bottom of the quarter panels. While the Starfire script is nearer the leading edge of the front fender, the Jetstar I callout is just behind the front wheel, where the Starfire has a functional fender vent. The Jetstar I also does without the emblem on the sail panel that the Starfire has.

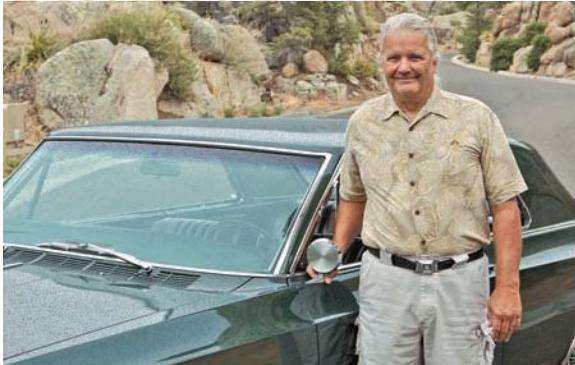
At the rear, the Jetstar I sports rounded-corner rectangular taillamps, with bright trim and a large metal panel with a centered Olds emblem in between set into the body-colored cove, which is also edged in bright molding. Separate Oldsmobile lettering is centered on the decklid. Ironically, the Starfire's rear seems stylistically cleaner. Though the taillamps gained Oldsmobile emblems that appear to split them into four sections like the front grille, the cove between them is simply silver with Oldsmobile lettering, forgoing the large panel of the Jetstar I. "Starfire" script adorns the passenger side of the decklid.

The instrument panel lacks gauges for temperature, battery and oil pressure, and its layout is shared with the Starfire. The seat upholstery and door panel patterns differ, however.

**What to watch for:** Rust in the lower fenders, rockers, rear quarters,



## OWNER'S VIEW



### **Bob Ryback purchased this unrestored Jade**

Mist Jetstar I from the original owner in Pottstown, Pennsylvania, in 2008. It was equipped with optional power steering and brakes, Hydra-Matic, light group and trunk release, and the original engine and transmission.

A devout Oldsmobile man, Bob recalls, "My father special ordered a '64 Dynamic 88 four-door hardtop with bucket seats and a console in the same color combination as this Jetstar I."

Since his purchase, Bob has performed a few hidden modifications to enhance driveability. They include a Pertronix ignition, a transmission cooler, a Pontiac Trans Am front anti-roll bar, '77 4-4-2 rear bar and 225/70R14 tires. The stock 3.42:1 rear gears were swapped for 2.87s to improve fuel mileage.

Bob drives his Jetstar regularly and recently completed an 1,800-mile round trip to the National Antique Oldsmobile Club's National Meet in Minden, Nevada, from his home in Arizona. "I love the rarity and clean styling of the Jetstar I," he says, "and other people seem to agree. Many have never heard of it, so I enjoy telling them about it."

## WHAT TO PAY

<b>1964 OLDSMOBILE JETSTAR I</b>			
	<b>Low</b>	<b>Average</b>	<b>High</b>
Hardtop/Coupe	\$7,000	\$15,000	\$25,000

## HARD PARTS

Starfire air-filter plate.....	\$37
Remanufactured carburetor (\$90 core charge).....	\$268
394 Engine rebuilding gasket and seal set.....	\$180
Pistons (8).....	\$405
Intake valves (8).....	\$147
Exhaust valves (8).....	\$118
Water pump (requires core).....	\$139
Roto Hydra-Matic rebuild kit.....	\$720
Roto Hydra-Matic filter.....	\$85
Weatherstrip body kit.....	\$368
Power steering gearbox rebuild kit.....	\$119
Chambered mufflers (each).....	\$120

## ENGINE

UPC	Block Code	Cu.In.	Horsepower	Torque lb.ft.
L75	JS	394	345	440

## TRANSMISSION

UPC	Code	Type	1st	2nd	3rd	Rev.	Availability
M11	---	3-speed man.	2.15	1.37	1.00	2.27	Standard
M35	OB	3-speed auto.	2.93	1.56	1.00	2.43	Optional
M37	N/A	3-speed auto.	2.93	1.56	1.00	2.43	Optional

## DIFFERENTIAL

Axle Ratio	Code: Open	Code: Anti-Spin	Availability
3.42	8	8L	Standard
3.64	6	6L	Optional
3.90	4	4L	Optional

## BRAKES

Standard Drums: Front	Standard Drums: Rear	Optional Rotors: Front	Optional Rotors: Rear
11 x 2.50 inches	11 x 2.00 inches	Not offered	Not offered

## WHEELS AND TIRES

Wheel	Tire	Availability	Comments
14 x 6 inches	8.00 x 14 inches	Standard	----
14 x 6 inches	8.50 x 14 inches	Optional	P29 oversize blackwalls, also inc. with A/C
15 x 6 inches	7.60 x 15 inches	Optional	P27 whitewalls with Y71
15 x 6 inches	7.60 x 15 inches	Optional	P28 blackwalls with Y71

*Note: P01 wheel discs were standard*

*Y71 option: heavy-duty frame and rear springs*

floors and trunk is common.

The VIN is located on a plate on the driver side A-pillar jamb. An example is "874L000000"—"8" = V-8 Engine; "7" = Jetstar; "4" = model year 1964; "L" = Linden, New Jersey, assembly plant; "000000" = sequential serial number.

The Jetstar I model designation is "3457"—"34" = series, which was shared with the Dynamic 88, and "57" = hardtop/coupe, which was shared with the Starfire.

Decoding the data plate, located on the passenger-side top of the cowl, provides body, roof and interior color codes and the build date and model number. Tag info and layout may differ from plant to plant. For a full breakdown of the data plate, go to [blog.hemmings.com](http://blog.hemmings.com) and search "Jetstar I" and "data plate."

## RESTORATION & PERFORMANCE PARTS

Rebuild kits and individual engine parts are available for the 394 from a few companies, as are some speed parts. Components and

rebuild kits are also made for the Roto Hydra-Matic transmission and the rear end. New 3.64:1 and 4.10:1 ring-and-pinion gears can be had for the latter. Expect to pay more for any of these parts than you would for later muscle car era Olds items, however.

Kits to refurbish the suspension, as well as the centerlink, springs, idler arm, et cetera, are also available, as are those for the brakes.

Reproduction body parts are non-existent, however—a serious consideration when looking at a potential restoration project. Severe rust-outs will require expensive and labor-intensive custom metalwork.

Neither interior panels nor seat covers are reproduced either, making interior restoration more difficult and expensive. For those reasons, it's imperative that a Jetstar I have minimal exterior rust and a decent interior. If not, the restoration cost may exceed its value.

*Special thanks to Kurt Shubert of the Automotive History Preservation Society ([www.ahpsoc.org](http://www.ahpsoc.org)) and Jim Shultz for their additional research for this article.*



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# ROAD ROCKET REIMAGINED



## 700-HP 2015 Yenko/SC 427 Camaros Hit the Streets

Words and photography by Thomas A. DeMauro

**T**he name Yenko should be familiar to regular readers of this magazine, as Don Yenko's racing and business exploits are well known, and the Chevrolet supercars he created have become legends. After producing the Stinger Corvairs and the 427 Yenko/SC Camaros, Chevelles and Novas of the latter 1960s and the LT-1 Deuce Novas of 1970, changing times brought the Stinger II Vega, before Yenko stopped building cars and concentrated more on catalog speed parts. An exception was a turbocharged Z28 program in 1981 that resulted in the Yenko Turbo Z. Six years later, we mourned Don's premature passing when his plane crashed.

In the decades since, there have been no production cars sold to the public wearing the famed Yenko logo. That changed, however, with the delivery of the first 2015 Yenko/SC Camaros to Sun Chevrolet on May 14th.

David Hamburger, Vice President of Special Vehicle

Engineering (SVE), the producer of the 2015 Yenko/SC Camaro, said of his company's creation, "I wanted to build the Yenko, as I couldn't imagine a better way to send out the 2015 Camaro in style."

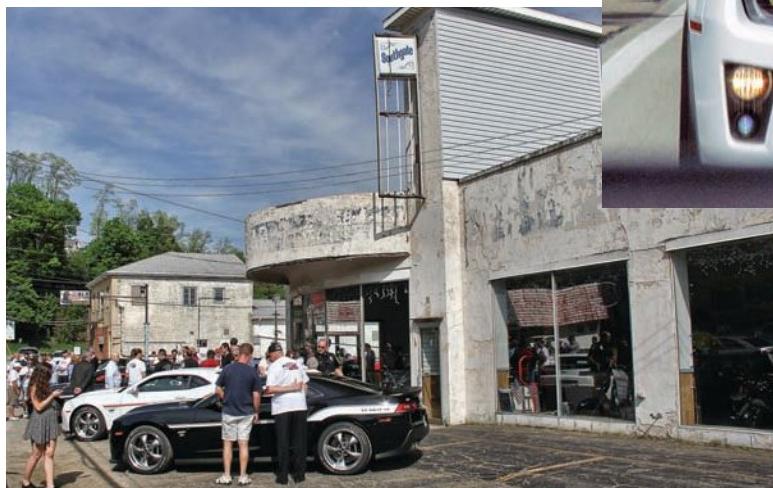
To ensure peak performance while maintaining drivability, the Yenko/SC is built off of the ZL1 Camaro, so Chevy's high-end suspension—lowering springs and large anti-roll bars—and brake components—14.6-inch rotors and six-piston Brembo calipers—are already in place to provide a solid foundation for an engine upgrade.

Instead of the ZL1's 580-hp 6.2-liter supercharged V-8, a hand-built 10.3:1 compression 427-cu.in. LS7 engine fitted with a TVS 2300 supercharger puts 700 hp through a dual-disc clutch-equipped, short-throw-shift-ed Tremec six-speed manual transmission (or a 6L90

**Facing:** A line of potent performers from right to left features the #1, #3, #49 and "Pilot Car #1" 2015 Yenko/SC Camaros.



**Sun Chevrolet** owner Marty Cumba had the cars covered and the windows of the showroom wrapped in preparation for the big reveal.



The new namesakes pose in front of the storied 575 West Pike Street location of Yenko Chevrolet and Yenko Sportscars, which built the Stinger Corvairs, 427 SC Camaros, Chevelles and Novas, the Deuce Novas and the Stinger II Vegas.



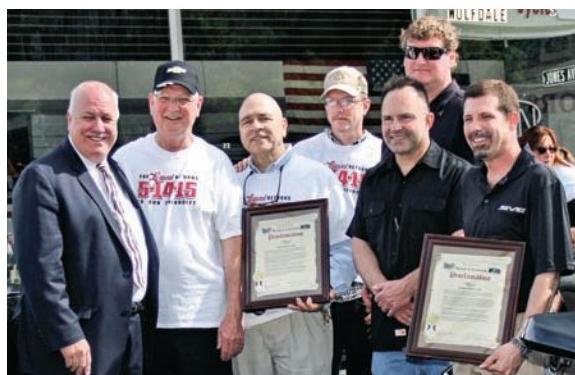
HD automatic) to a 3.73-geared HD limited-slip differential. The ZL1's Magnetic Ride Control, Performance Traction Management, Launch Control, differential cooling system and upgraded fuel system are retained.

A set of vintage-looking 20 x 10-inch front and 20 x 11-inch rear Gunmetal gray five-spoke wheels sport a machined lip. Production Goodyear Eagle F1 tires feature raised white lettering to complete the modern interpretation of the '60s appearance.

Exploiting the performance potential of the cold-air-fed engine package is a custom tune for the PCM, and the speed limiter is increased to 205 MPH. Visual upgrades include an RTM hood with integrated scoop and grille, GM Heritage style grille with color-keyed surround and Yenko graphics and stripes available in various colors.



The #3 Yenko/SC Camaro leads this procession of power toward the former Canonsburg home of Yenko Chevrolet.



Car owners and dignitaries include, from left to right: Mayor Rhome; Joseph Podlesky, Yenko #3; Martin Cumba; Ed Seymour (hat), Yenko #15; Tim Dunlap, Yenko #49; Michael Rooney (sunglasses), Yenko #1; and David Hamburger.

**Left:** A Yenko emblem, engine callout and graphics set the rear view apart from other Camaros.

Odds are no one will ever forget they're driving a Yenko/SC. If the incredible acceleration, handling and braking aren't enough to remind you, the fact that the name appears on and in the car no less than 17 times—not counting the two special key chains—will. "Yenko" adorns the vintage-style emblems on the fenders and deck lid, all four brake calipers, a numbered plaque under the hood, a badge on the top of the supercharger, graphics on the injection-molded engine covers, the steering wheel, a numbered dash plaque, the two front floor mats and the stripes on each quarter-panel. The "sYc" logo is on the hood, the four center caps and each bucket seat headrest—seven appearances. There are also 427 emblems on the fenders and deck lid and callouts on the supercharger and engine covers.

Upon learning of the proposed 2015 Yenko/SC Ca-



**David (driver) and Bryan lead this pack of horsepower-laden Fifth-Gen Camaros back to Sun Chevrolet in Yenko Pilot Car #1.**

**Right: It's not too common for the pilot car and the #1 production car of a run of specialty vehicles to be at the same place at the same time, but that's what happened at the introduction.**



Pretty cool to see a dash plaque that says "Pilot Car #1." According to David, it's no trailer queen. He's already put over 16,000-miles on it driving it to events to get the word out regarding the Yenko/SC Camaro program.



**Tim checks out the interior features of his new Yenko/SC while waiting for traffic to start moving. Note the protective plastic film is still on the Chevrolet MyLink 7-inch touchscreen.**

maro via the pilot car's introduction at the 2014 SEMA show, Sun Chevrolet owner Marty Cumba Sr. and his son, Martin Jr., were intrigued with the program, as their dealership at 2939 Washington Road in McMurry, Pennsylvania, was the last location of Yenko Chevrolet. It became Sun Chevrolet when Don Yenko sold it in 1982.

Already well versed in the story of Don Yenko and his celebrated creations, the Cumbas saw the 2015 Yenko/SC as an opportunity to pay homage to Don and the original cars, while making history with the new ones.

Following discussions with David Hamburger, Marty and Martin placed customer orders, and plans were made to debut the first production models at Sun with a showroom reveal and a police-escorted cruise to the

Canonsburg site of the former Yenko Chevrolet where the 1960s and early 1970s Yenkos were built. The Cumbas, along with the Sun staff, coordinated with local authorities in three towns to ensure a smooth event and Mayor David H. Rhome of Canonsburg declared May 14, 2015 "Yenko Day" by proclamation.

On the big day, the #1, #3 and #49 production cars (#15 was scheduled but wasn't delivered in time) were placed in the showroom and covered, and David Hamburger arrived in Pilot Car #1. Commenting on the build order, he relates, "In the past, we numbered our specialty vehicles in production sequence, but this time they are numbered in the sequence that the orders were received." Also in attendance were the owners of those first four Yenkos and Bryan Wunsche, the Pittsburgh area Zone Manager for Chevrolet.



Embroidered logo headrests have become a mainstay of SLP/SVE cars.



A subtle reminder on the steering wheel.

Check out the trunk goodies. There's a faux leather-bound SLP (recently changed to SVE) portfolio, owner's manual, a pair of Yenko key chains and a set of Yenko labeled floor mats.



The introduction went off without a hitch from the unveiling in the showroom to the cruise to Canonsburg, the Mayor's reading and presentation of the proclamation and the return cruise. A gathering back at Sun had free food and discussions with Mark Gillespie and Warren Dernoshek—co-authors of the book *The Yenko Era*, Yenko historians and past employees. (According to the authors, a second Yenko book is currently in the works.)

Marty concludes, "We invited Camaro lovers and Yenko aficionados to our 2015 Yenko Camaro introduction. Thanks to support from them, the new Yenko owners, SVE, Chevrolet, Mayor Rhome, local police and my staff at Sun, it was a great event that also served as a fitting tribute to Don Yenko."

According to David, a Yenko/SC can be ordered



The Yenko/SC Camaro will never be accused of being a sleeper, as it boldly proclaims its supercharged 700 horsepower, on the hood, under the hood, on its numbered plaques and on its keychains.

The Yenko emblems and graphics package design was a collaborative effort between SVE and GMCI (General Marketing Capital Inc). Note the white letters on the tires and period-inspired five-spoke wheels.



from any Chevy dealership at a package price of \$43,000 over the cost of the ZL1. "The dealer places the order, GM dropships a ZL1 to SVE, we build a Yenko and send it back to the dealer for delivery to the customer." Unfortunately, all 50 cars are currently spoken for, but a buyer can be put on a waiting list to fulfill any cancellations that may arise.

Given the positive response to the 2015 Yenko/SC, and the fact that David drove the pilot car to the 2016 Camaro intro in Detroit, it begs the question, "Will there be a 2016 Yenko/SC Camaro? He hedges, "I don't know for sure yet, but I'm leaning more towards yes than no. If we do it, the run will once again be limited to 50 vehicles." HMM will update you on further developments regarding a potential 2016 Yenko/SC Camaro, as information becomes available.



# FUNNIES TURN 50, THE SEQUEL



*A second helping of  
flip-top fuel guzzlers*

By Jim Donnelly

Photography by Bob McClurg and G.K. Callaway,  
interpreted by Bob McClurg

**L**ast month, we guided you through an anniversary in motorsports that we nearly missed: The half-century mark of Funny Car drag racing. And we enjoyed putting it together with the ageless shooter and historian Bob McClurg enough that we decided to do it again this month. We'll say it again: Other than the adoption of the quarter-mile race distance, the development of the fuel coupes may well be the single most far-reaching innovation the sport of drag racing has ever embraced.

It took a while for them to get going as an accepted drag eliminator, but the early days when Funnies were largely exhibition cars were some of the rowdiest in dragdom's long heritage. Again in this installment, we're serving up a sampling of the various engines, structures and execution that defined the early Funny Car in the days before that term was firmly in drag racing's lexicon. Its acceptance by the rapt crowds who jammed the match-race bleachers stands as an object lesson that when it's all said and done, motorsports is really about entertainment.

And when the Funny Cars first made their smoky, thunderous appearance, practically every visit to the

**“**This was Top Fuel driver Dave Beebe's first time behind the wheel of Nelson Carter's Super Chief Funny Car at Orange County International Raceway. Some of the other Top Fuel drivers had been taunting him about his not being able to drive a Funny Car, but Dave Beebe, being an old Fuel Altered driver, said 'Watch this.' He stood it almost straight up and then deliberately danced it along the guardrail so the other guys would think he was out of control. What he ended up doing was making this very awesome run. I don't recall exactly what numbers he ran, but it was kind of an 'I'll-show-you' type of deal.

This isn't the Beebe who was with John Mulligan in the Beebe & Mulligan Top Fuel team. There were three Beebe brothers: Dave, Tim – Tim was the Beebe & Mulligan guy – and there was Jerry.

This photo dates back to 1968 or 1969. **”**

strip turned into a stroll down Broadway. So let's have another dose of those magic days of yesteryear. With Bob's photography, and that of his pal G.K. Callaway, you can almost feel the nitro inflaming your sinuses.

**“**At right is the late Richard Schroeder in the *Bad Bossa Nova*, a car built by Bill Thomas Race Cars, which had built the Cheetah for road racing. It was the sister car to Dick Harrell's red 1966 Nova. Schroeder's car ran huge loads of nitromethane, and it was sponsored by Emerald Chevrolet out of Washington state. It's an injected 427 on nitro.

These cars, in the early days of Funny Car racing, would generally run in the 9s. They weren't terribly fast, but they certainly looked fast to the crowds.

I shot this during the summer of 1966 at Lions Drag Strip in Long Beach. It's a steel-bodied car, a Bill Thomas kit car where you took a street Chevy II or Nova, and bought the entire tube front end and bolted it to the firewall, and then put fiberglass front fenders on it. But this started out as a production Nova. **”**



"I was at Aquasco, Maryland, in 1968 where Malcolm Durham was running his *Strip Blazer* Camaro. It had a blown Chevy in it on nitro, Logghe chassis, and this car ran 7.60s as I recall. This is when I worked at *Super Stock* magazine, which was based in the Washington, D.C., area.

I'll tell you that Malcolm was one of the absolute nicest guys you would ever want to meet. I'll never forget, back in the early Seventies, when I went to photograph him in front of the U.S. Capitol in Washington, I had run over a curb and ripped the exhaust system out of my car. I called Hedman Hedders in California and they shipped me a new system overnight. And Malcolm put my car in his shop, kept it overnight, gave me a ride to where I was staying and a ride back in the morning, put the new exhaust system on it and sent me on my way. He didn't even charge me a dime." //





Up on the back bumper at Lions is Ronnie Runyon in the *Blue Hell* Corvette Funny Car. It was sponsored by J&C Corvette, running out of Southern California. Believe it or not, this actually started out as a Corvette street car. They started bringing it to Lions, and it got more and more radicalized as time went on. It used a blown big-block Chevrolet on nitro.

On this particular run, when he came down, he tore the front end right off the car. There was simply no getting away from the slam-down on that one. The front fenders just snapped from the shock, I remember.

Back then, which was about 1966, Funny Cars were really considered more or less of an oddity or a curiosity than an actual race car. Funny Cars didn't really start to get serious as a competitive category until around 1969. //



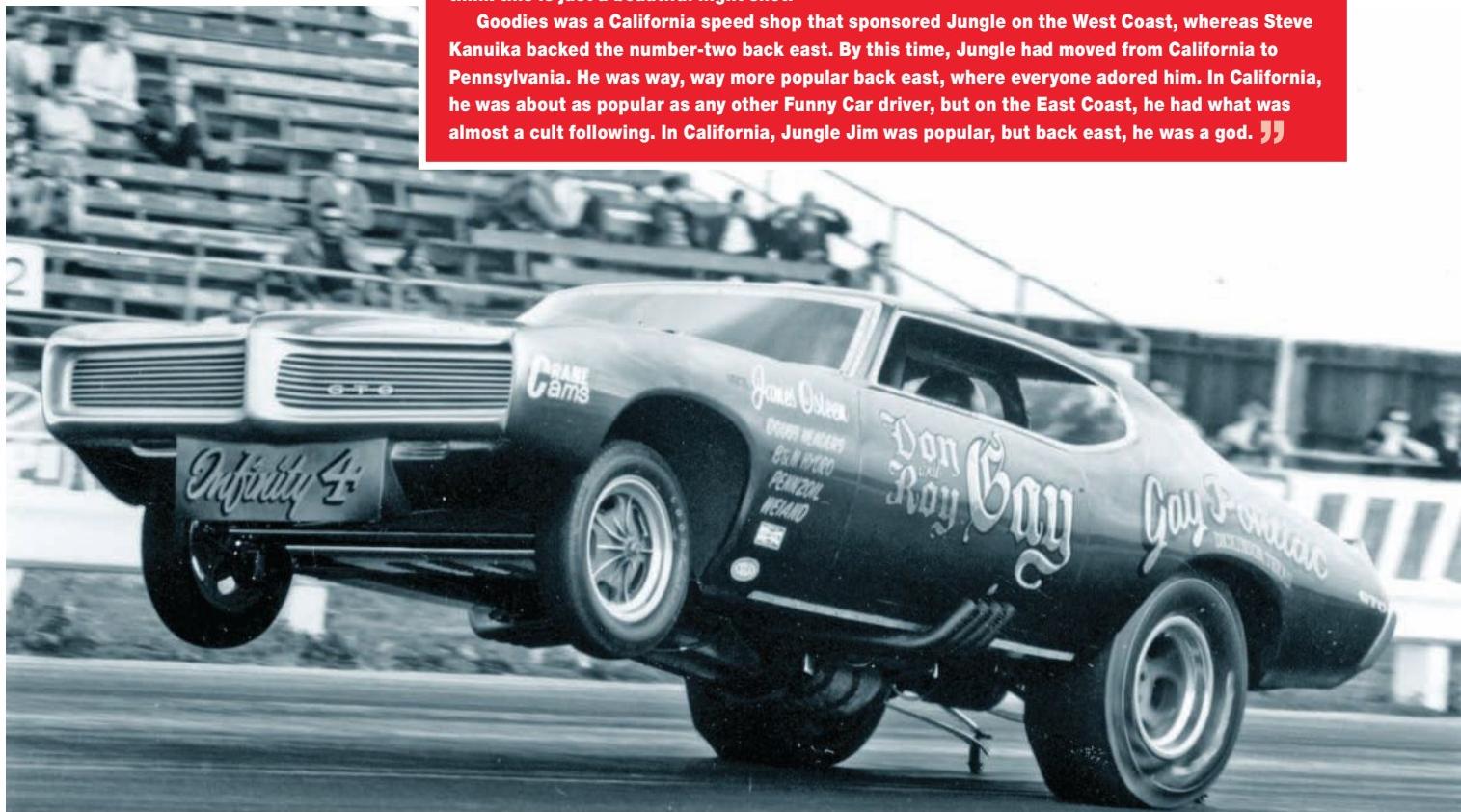
I can tell you all about this car, which has a very interesting history. This is Shirley Muldowney's first Funny Car, right here. This car was featured on the cover of *Hot Rod* magazine in 1969, along with Connie Kalitta's Boss 429-powered Top Fuel car. Bob D'Olivio shot it in the studio with Kalitta in a suit between the dragster and the Funny Car, both of which had Boss 429s for power. Into that year, the car just didn't run with the Boss 429, and so Kalitta swapped in a Chrysler Hemi instead.

This car, the *Bounty Hunter*, had a 1969 Mustang Mach 1 body, and Connie is here running that year at Indy. The following year, when the new-style 1971 Mustang body came out, Kalitta put one of the new Mach 1 bodies on the frame and ran it as Connie Kalitta most of the season, and then Shirley Muldowney either bought it or had it given to her, and she ran it as her first Funny Car. A little later, they built those red, white and yellow *Bounty Huntress* cars for Shirley to drive. //



“ Jungle Jim Liberman is staged up against the Super Nova of Randy Walls at OCIR in 1969. They were both powered by pure blown Chevys on nitro. This was probably during one of the Manufacturer's Funny Car Team Championship events that were so popular at Orange County. I think this is just a beautiful night shot.

Goodies was a California speed shop that sponsored Jungle on the West Coast, whereas Steve Kanuika backed the number-two back east. By this time, Jungle had moved from California to Pennsylvania. He was way, way more popular back east, where everyone adored him. In California, he was about as popular as any other Funny Car driver, but on the East Coast, he had what was almost a cult following. In California, Jungle Jim was popular, but back east, he was a god.”



“ Don and Roy Gay ran this Pontiac GTO, using a 1969 body and called *Infinity*, running at Orange County International Raceway. I'm pretty sure that Roy, the younger of the two Gay brothers, is driving here. They're running here in 1969 during one of the usual weekend summer Funny Car shows at that track.

This car had a Keith Black-built Chrysler, and it was the same Logghe chassis that they had run as a Firebird the year before with a rainbow paint job. It ran in the mid-7s, which was a typical time for 1969, so you can extrapolate that.”



## LETTER OF THE MONTH: REGULAR EXERCISE

I always read and enjoy Jim McGowan's columns in *HMM*, but his column in the July issue was especially interesting to me, since it discussed both personal health and an interest in muscle cars.

Although I am in good health now, I have had enough health problems to make me keenly aware of my mortality. I gave open heart surgery a try last year (for repairing a faulty mitral valve). I tell people that I've had a valve job, but have never had the head off.

On the topic of muscle cars, I've owned the same muscle car for 51 years, having purchased it new in August of 1964. From the time I purchased it at age 22 through my present age of 73, we've grown older together, but we both still try to stay in good shape.



I walk three miles a day and work out with weights and do 25 pushups every other day. My muscle car, at age 51 and 14,500 original-paint miles, still runs at the Pure Stock Drags every September and manages to beat most of the GTOs it has raced there, turning a best time and speed of 12.61 and 114.03 MPH in Pure Stock trim. What is it? It's a 1964 Studebaker Challenger R3, known as the *Plain Brown Wrapper*. We in Team Studebaker think it still has a little more left in it, so we keep tuning.

So there's the connection for me between trying to retain good personal health and keeping a muscle car in fine fettle over a similar time period.

One final thought: Although the 1964 GTO certainly gets a lot of press for being "The first muscle car," we Studebaker enthusiasts think we have a pretty good claim on that title. Studebaker offered the supercharged R2 Avanti engine and T-10 four-speed transmission as options in the 1963 Lark two-door sedan right from day one of 1963 production. A good example of that combination is Ted Harbit's car, *The Stude Tomato*. It has turned a best of 12.74 and 113.25 MPH in Pure Stock form—again, better than most GTOs. The 1963 Lark two-door sedan was certainly not a full-sized car (it was considered a compact in 1963), and the new-for-'63 R2 engine sure exemplified the muscle car ideal of big engine in a smaller package.

Anyway, great job, and I hope to read many more of your fine columns.

Take care.

**George Krem**  
Past President, Studebaker Drivers Club



Ontario, Canada plant built Cutlasses in '65, but did not build 4-4-2s. GM of Canada has documented that Olds did not ship any 400-cu.in. engines into Canada. Therefore, no 4-4-2s were built there.

Also, 4-4-2s assembled at the Fremont plant and destined to be sold in California were built with a PCV valve installed in the driver-side valve cover. Those engines also used the '66 "top hat"-style oil cap and a breather in the passenger-side valve cover—an early attempt at a closed-loop emission system.

The three-speed transmission was on the column until February of 1965, when Olds came out with the heavy-duty three-speed floor shift. This transmission was the Dearborn three-speed, which included a Hurst shifter. This was the first time a Hurst was used in a 4-4-2. The four-speed shifter was not a Hurst, it was the Muncie (Inland). Many period magazines incorrectly state that this shifter was a Hurst unit.

The frame under the 4-4-2 was not the boxed convertible unit. The standard 4-4-2 frame was open channel, with gussets at the front and rear crossmembers. The boxed frame was an option, but it was seldom ordered. People in the know have yet to see one with the optional boxed frame. In reality, the frame used under the 4-4-2 was the same frame Olds used for manual-transmission F85s.

The rear end used was dependent on



### 4-4-2 FACTS

Thank you for your Buyer's Guide on the 1965 Olds 4-4-2 (*HMM* #138, February 2015). I'm very pleased to see one in your magazine—this is the first time *HMM* has run anything on the '65. It's a great car that doesn't get the press that the later cars enjoy.

I run a website and forum dedicated to these cars, and I found some misinformation in your feature. First, 4-4-2s were only built at the Fremont, California, and Lansing, Michigan plants. The Oshawa,

the gear ratio. A 3.08 and numerically higher gear mandated the Type P 8.2 axle; gears lower than 3.08 numerically came with the Type B axle.

Only cars built in Lansing will have 4V on the cowl tag—Fremont did not use the same option codes as Lansing. So a Fremont cowl tag will not have 4-4-2 identification.

The bench seat option was only available on the Cutlass Sports Coupe 4-4-2s; hardtops and Convertibles were bucket seats only.

I've included photos of the two '65s I own, one a Fremont-built Holiday Coupe and the other a Lansing-built Club Coupe; both four-speed cars. The Club Coupe is currently undergoing a body-off restoration.

Again, thank you for giving the '65 4-4-2 some love.

**Jasen Ramsey**  
Plymouth, Michigan  
[www.ultra-high-compression.com](http://www.ultra-high-compression.com)

### WISDOM OF THE AGES

Every day that I wake up and look in the mirror, I realize how much I look like your writer Jim McGowan. We could be brothers, and no one would assume we were not. After decades of muscle cars and countless hundreds of magazines, I am still with the program. Being retired, I only elect to subscribe to *Hemmings Muscle Machines* nowadays. Being on a fixed

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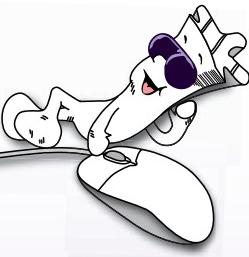


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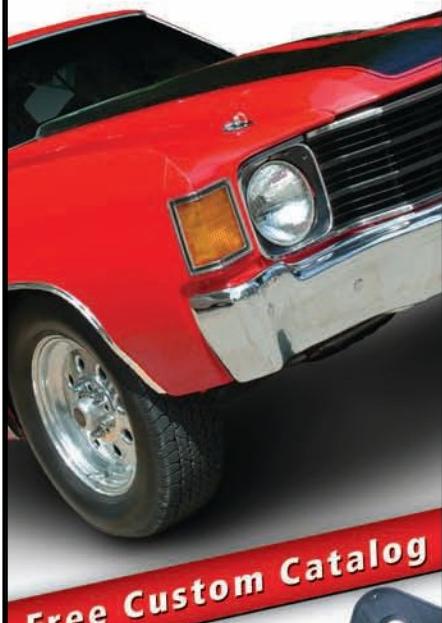
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income only allows me so much.

But I must say this: With the commentary from drag racing legends, to the commentary of Jim, the expertise of Ray and the legions of aged car enthusiasts, somehow, I feel part of a family that enjoys all cars, no matter the make or model. We all love certain vehicles from the past, for whatever our heart desires. I have a 1970 Nova SS that I still love driving today. It reminds me of a simple, less stressful time in life that was more carefree and not so technologically advanced.

Some 15 years ago at work, I had a 20-something supervisor who asked, "What's the deal with the old muscle cars?" He had some new Mustang putting out such-and-such horsepower. I asked him, "Have you ever driven a 375-hp Chevelle with a solid-lifter cam?" The reply was, "No," which was what I expected. Yes, today's cars are more powerful, but they purr like a kitten. It took a "real man" to handle the cars back in the day. After that, he always greeted me with a "Hello, Mr. Smith." Sometimes, experience does trump technology and today's powerful engines.

*Nick Smith*

*Via email*

**OHC INQUIRY**

Forgive an ignorant question, but where are the Pontiac OHC inline-sixes?

I was a high-school kid lucky enough to "inherit" Mom's '66 Mustang, but my best bud, Gary, inherited his mom's '64 Chevelle SS 283 with four-speed. After it was stolen, he got a '67 Firebird 400 HO, but a guy's '68 Firebird with the cammer six could rip him on Mansfield Highway. I know they came in Tempests, but were they optional in Firebirds? It would have been an esoteric option, but the car I saw was real, in the parking lot of the pool hall, and the cage for the belt drive was real.

So, HMM what happened to all these bad, little Birds? My memories of the '70s come in fits and starts, so I rely on you.

*Lynn Holt*

*Mansfield, Texas*

*First, the Pontiac OHC-6 engine was definitely an option in the Firebird throughout the first generation. In fact, if you wanted a*

*six-cylinder Firebird during those years, the only choice was the OHC-6. The one you recall most likely had the Sprint option, which used a high-performance version of the OHC-6 with a four-barrel carburetor, a more aggressive camshaft and higher compression, among other upgrades. Early OHC-6 engines were 230-cu.in., while the later ones ('68-'69) were 250-cu.in. Many owners of Sprint-6 Firebirds tell tales of surprising drivers of V-8 pony cars back in the day. So where are they now? Some remain, but many have been treated to V-8 swaps. Many enthusiasts appreciate the Sprint-6's alternative approach, but had a hard time resisting the allure of the traditional V-8.—Ed.*



**CHEVELLE-UTION**

Thumbs up for the great articles in HMM. I got a kick out of Terry McGean's July 2015 editorial, "Roll with the Changes." I've had my '69 Malibu since the mid-'80s. This was my only car until 2003, when we had our first kid. I got it with 30,000 miles, and it has over 250,000 now. It's been through a few different wheel makeovers. It is primarily a street car, currently running a 427-inch small-block, a TH-400 with a trans-brake and a 12-bolt with 3.55s and a Posi. I do some 1/4-mile racing, but the car got a little too fast to be without a roll bar (my best was 11.2 @ 118, without the 150-shot of nitrous). I recently tried autocrossing and had a blast. The car did well, but driver skill was lagging.

Here's my wheel story: Back in the '80s, I grabbed an SS hood and wheels from a real SS in the junkyard (stupidity, lack of foresight, and lack of funds kept me from taking the whole car back then). In the late '90s, I upped the 14s to 15s, but kept the same stock look. In search of better stopping/handling, a C5 front-end kit was added and the car now runs 17s in front and 15s in back. Same wheel style, but no more trim rings! I must admit, it initially looked weird to me, but it's grown on me, and the stopping/handling improvements are awesome!

Keep up the great work!

*Mark Jacobs*  
*Tampa, Florida*

## REAL WINNER

I want John Breitenbach, who said, "But this never wins anything!" ("It's a Keeper," HMM #143) to know this: 99 percent of the cars in HMM are bought way after they were built, have had many different owners, and are usually made new again and hardly ever driven. There is no real love attached to those cars, no memories of many years of family connections and life-in-general connections. John, you are one of the very few who loved his car enough to keep it through thick and thin.

Never wins a trophy, huh? Your memories overshadow all trophies won by all the trailer queens ever given out.

You and your car are an exception. I bet 100 percent of the owners of trailer-queen cars would give anything to own their original muscle car from the car's birth.

You win it all, John. Congratulations.

*Robert Peede*

Via email

## WE NOW INTERRUPT...

I usually have a reading regimen each month when HMM arrives. First to be read is the Auction Action to see what my dream cars are fetching. Second, I go to the editorials, where I enjoy not only the regular writers, but especially the guest columnists like Shirley Muldowney in July 2015. Next is—wait, what was that gorgeous car on page 16? Now my routine has been totally disrupted. Except for the color, it looked a lot like the 1971 Mach 1 I bought new in the same year.

I had just graduated from college and had my first job and first car payment (\$80 per month), and the collateral was a drop-dead '71 Mach 1 in black with black interior, a four-speed and a 429. I ordered the beast from Jim Nelson Ford in Broken Arrow, Oklahoma. The trade-in was a '65 Corvette roadster with a 300-horse 327. Boy, do I wish I had both of those cars now!

While the Ford wasn't the fastest car I had owned (that was a 1966 SS 396 Chevelle), it turned the most heads. Loved taking it out for a spin at the Admiral Twin Drive-In or cruising the "Restless Ribbon" in Tulsa. Now I take the grandkids out to the same Admiral Twin Drive-In. This drive-in burned to the ground a couple of years ago, but was rebuilt since it is a Tulsa icon, having been used in the filming of *The Outsiders*.

I will forgive you for disrupting my routine. And I look forward to the next great issue.

*Bill Zumwalt  
Via email*

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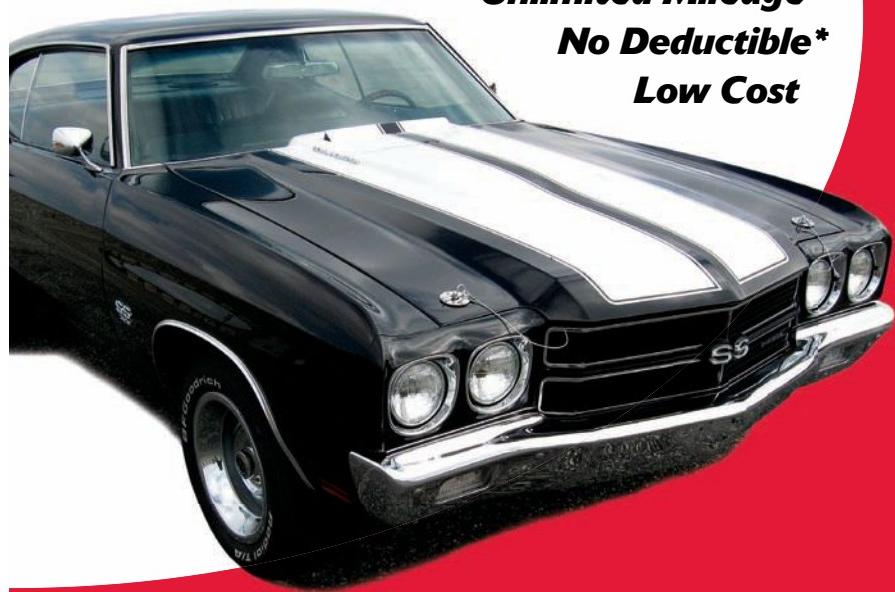
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**“Over and over again, we both hear from the fans about how the Hot Wheels deal and the match racing first got them into drag racing, and into cars as a whole.”**

## Fans Don't Forget

**S**omething has

really stumped me for years about my career. I've been out

of the game for about five years now, but I'd been in it for the previous 50. And it was in 1970 that McEwen and I signed the deal with Mattel to do the Hot Wheels program, match racing our Funny Cars. That sponsorship lasted three years. And last weekend, McEwen and I went to a little drag strip outside of Detroit in a place called Milan, Michigan. In 1971, we were there with the Hot Wheels cars, and they made a film about it called *Once Upon a Wheel*, which is still available. When we got there last weekend, I realized that the drag strip hadn't changed a bit in more than 40 years.

We were signing autographs, and it had been 45 years or so since we were last there. The thing that amazed me the most was that we were together for just three years as the Snake and the Mongoose with Hot Wheels, and with all the things I've done in the sport that I'm proud of—winning six championships, 120 or 130 national events and seven out of eight national events in one year, a record that nobody else has ever accomplished; being the first guy to run in the fives, the first guy to run 250 MPH in a Funny Car; and getting inducted into every motorsports hall of fame there is—I thought I'd be remembered for those accomplishments, or at least, I hoped I would.

But at Milan, all anybody wanted to talk about was the Snake and the Mongoose. I don't know what that tells me; maybe it's the marketing, but today, people still remember that. It's not like I was setting any track records during that period. It was the two of us, out on the road. It's unbelievable what the Hot Wheels deal did, not only for us, but for the sport as a whole. And you know, to this day, McEwen is out there selling T-shirts and Hot Wheels cars and doing events, and people want to come up to us and talk to us about those days, and about the Hot Wheels cars. Over and over again, we both hear from the fans about how the Hot Wheels deal and the match racing first got them into drag racing, and into cars as a whole.

I love it in one respect, but I was a hard-nosed racer, the kind who figures that the guy who wins is the guy that everybody's going to remember forever. But that's not what happened. What happened was Hot Wheels. They even made a movie not long ago about it, 2013's *Snake & Mongoose*. When we go to an appearance, and people are lined up, and they have Hot Wheels cars and magazines from back then with the cars in them, and photos, and they tell us all the memories they have from that era,

it's incredible. It's people who were maybe 13 or 14 years old when McEwen and I started out with Mattel, and they remember. A lot of them tell us that they went to their first drag race to see a match race between the Snake and the Mongoose, and got hooked on drag racing in the process. And into cars. And into muscle cars. There's so many of them that it's just astounding.

It was a phenomenon. We didn't really realize it at the time. All we wanted to do was get a sponsorship, race and make some money. We didn't know how it affected people, but boy, it sure did, because that's all they want to talk about now. We're at Milan, I'm sitting next to the Mongoose, he's signing autographs, and nobody asks anything about how many national events we've won. They want to talk about us and the Mattel days. That's what they care about. I think it's great, but I don't know exactly what it tells me.

If I had to guess, I'd say it means that race fans are loyal and have long memories. It's kind of like the world that Hemmings serves. It's about reviving or reliving memories of the past. Like, you look at a guy who goes out and spends a ton of money on a '57 Chevy at auction, or spends heavily to have one restored. He's probably remembering what a cool car it was when he first owned one, or maybe he was too young to have one when it was new. That's what it's all about, I think. I really believe that.

I don't know in today's world how Tony Schumacher is going to be remembered, or any of the other pro racers who are running today, and it puzzles me a little bit. I always figured that people would want to talk to me about the early Top Fuel scene where I started out, or about setting national records, or about winning Indy, but they don't.

Part of it probably is the sheer number of runs the Mongoose and I made during those years. We did national events, sure, but most of it was match racing. And with the match racing, there was no television back then, so the match races would take us to Milan, Michigan; Detroit Dragway; U.S. 30; this little Long Island drag strip in Islip, New York, and elsewhere, all over the United States. And during that period of time, people came out to the races to see us. A lot of people. And we'd stand there, and shake hands, let them help us pack the parachutes, let them touch the car—there was no fence around the car in the pit area in those years—and just have a good time. Those memories from the 1970s have stuck with them to this day, and probably will for the rest of their lives.

I don't completely understand it, but I sure love it.



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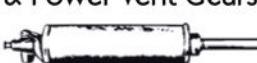
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# FLOORPAN FINESSE

*Sheetmetal grafting for seamless repairs*

Words and photography by Barry Kluczyk

**R**ust. Rust. Rust. It's the bane of every hobbyist, no matter how dry the climate is where they and their cars live. Even if it's not immediately visible in the quarter panels or rockers, there's a good chance water found its way into the crevices deep inside the body—in the toe panels at the front of the floor, in the plenum area in the cowl and, very likely, beneath the trunk mat, turning the floor into sheetmetal Swiss cheese.

Sure, there are exceptions to the rule, and we've all been amazed to discover rot-free steel, but if you or your preferred resto shop is planning a thorough reconditioning of your favorite chunk of Detroit iron, a measure of rust repair will more than likely figure into the project.

There was no question that the 1964 Pontiac Le Mans convertible project car in our story was going to need a serious case of sheetmetal surgery. A Midwesterner all its life, the A-body suffered from typical corrosion from stem to stern. Previous patches kept the car on the road longer, but couldn't stave off the inevitable.

"You never know the full extent of the rust issue until you get the body stripped and media-blasted, but even before that, we knew this one was going to need some serious attention," says Nyle Wing of Wing's Auto Art in Ionia, Michigan. "The car had been in the owner's family for decades, so he told us about some of the previous repairs, but even

we were surprised to see rust holes literally from one end of the car to the other."

Wing's shop has long been known for its uncompromising restoration work among sticklers for authenticity in Pontiac and Oldsmobile A-bodies.

To be honest, the extent of corrosion throughout the bodywork on the Le Mans would normally make the project cost-prohibitive, because the investment in hours required to repair it greatly exceeds the car's market value. Sentimentality is the driving force behind this restoration, however, so analytical reasoning falls by the wayside—much like the car's original floorpans did years ago. As a matter of fact, it's floorpan repair we are focusing on in this story.

It's one of the most common sheetmetal repair projects encountered, and it's also one that must be performed accurately to ensure a strong, long-lasting repair. We follow along as Wing's crew slices out the bad steel and inserts the new with surgical precision. They also demonstrate the more time-consuming butt-weld method rather than lap-welding, which makes all the difference in a high-quality repair.

"Like many aspects of car restoration, there are several ways to approach a task, and ours aims to provide a seamless repair on a concours-level restoration, just as you would expect," says Wing. "The butt weld is the way to go for a strong, factory-type repair, and it's what we do regardless of the final

level of finish work. It takes a little more time and experience, but the end result is worth it."

This is a project that could be tackled at home, but we wouldn't necessarily recommend it for an enthusiast with little or no welding experience. The chance for warping the comparatively thin sheet-

metal used in floorpans is high. Farming the work out to a professional shop and bringing the newly solidified sheetmetal structure home for further reconstruction is a good compromise.

No matter which path you choose, you can't ignore the problem. Rust, as they say, never sleeps. 



**1**  
**The starting point for the project is this comprehensively corroded 1964 Pontiac Le Mans convertible, which suffers from the same rust issues as many vehicles of its era. The crew at Wing's Auto Art first media-blasted the body to reveal the extent of the corrosion. A layer of primer was sprayed on the bare sheetmetal after blasting to prevent further oxidation during the bodywork stage of the restoration.**



**4**  
**Here's a bottom-up look at the rot and previous repair. It ain't pretty, but fortunately, the damage is confined to the floorpan itself. The crossmembers and other structural components are intact and rust-free.**



**2**  
**Not surprisingly, the stripped body shell revealed previous repairs, including this quick-and-dirty patch for the driver's floorpan. It was simply a sheet of steel tacked in place and surrounded by hastily applied sealer. At least it kept the driver's feet off the ground.**



**5**  
**The first step in the repair is the removal of the previous patch panel. It doesn't have to look good at this point, so an air chisel was used to simply cut around the inner perimeter of the panel.**



**3**  
**It was the same story on the passenger-side front floorpan. Worse even. Fortunately, the transmission tunnel was comparatively solid, so the metal work would only involve replacing the individual floorpans rather than the entire floor—a job the Wing's crew will have to tackle in the trunk.**



**6**  
**With the old patch panel removed, even more corrosion is revealed in the layer beneath—the remnant of the actual floorpan. It all has to go. Fortunately, the body-on-frame design of the A-body means there are fewer crossmembers and spot welds to contend with in the floor than, say, a unit-body vehicle.**



7

A number of methods could be used to slice out the corroded floorpan, from a torch to a cut-off wheel to even a pair of shears, if you really wanted to make a day of it. Wing's Auto Art uses a plasma cutter, which works by sending an electric arc through compressed air or another gas that's passing through a constricted opening. That elevates the temperature of the gas dramatically — up to about 20,000 degrees F. An oxyacetylene torch reaches about 6,000 degrees F, meaning the plasma cutter flows through the sheetmetal like a hot scoop through ice cream.



8

The replacement floorpan for the repair is available from a number of restoration parts suppliers such as Ames, YearOne and Original Parts Group. It is contoured to match the car's original stamping and is designed to be trimmed to fit.



9

The new floorpan was laid over the opening of the original floor and the edge traced to indicate the trim line for the rear of the pan. The sides of the pan will be mostly cut off, because the portion that extends over the transmission tunnel isn't needed. It would be easy—and lazy—to simply leave the pan as is, but taking the time for a custom fit will pay off with a more precise fit.



10

A cut-off wheel is used to cut out the additional metal in the floor to make room for the new floorpan. A clean, sharp disc makes the job easier. A dull one will require more time and generate more heat, which could possibly warp the metal.



11

After that, a grinding disc is used to dress the sheetmetal and prepare it for welding.



12

The first test-fit of the floorpan looks okay at a glance, but upon closer inspection, it's easy to see the mile-wide gap between the pan and the toe-board structure (upper-left corner), and the central reinforcing "beam" of the pan doesn't align with the corresponding area at the front of the body structure.



13

Here's a closer look at the alignment. More trimming of the new floorpan and probably a little hammer work is in order.



14

The edges of the floorpan are trimmed further. The goal is to get the pan to fit into the opening sort of like a puzzle piece. It doesn't have to be exactly that precise, but the idea is for it to butt up against the edges of the opening with no overlap.



15

Getting closer. A couple of sheetmetal screws snug the new pan into the opening, drawing it down further for a more precise fit.



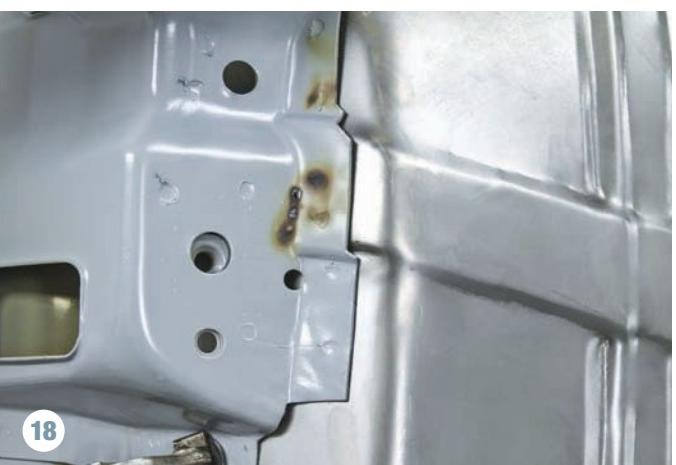
16

The tighter-trimmed pan's bottom edge is traced for further tidying. Again, the idea is to create a new panel that fits into the opening without overlap.



17

A quick zip with the plasma cutter trims the panel's edges down to size.



18

The pan is back in for another trial fit and shows it's about as close as it's going to get. The alignment of the center reinforcement is good, although it's clear to see the widths of the factory stamping and the replacement stamping differ. That can be further massaged for a totally seamless appearance. It just takes time... and, if you're paying a pro, money.



19

Here's a look at the custom-fit floorpan, clamped in place and ready for welding. The precision that results from Wing's continued trimming is terrific. Note how the horizontal ribs in the transmission tunnel align perfectly with the ribs in the new pan. Nice work. Also notice the floor drain hole is traced for cutout.



20

The first welds are applied as individual 1/4- to 3/8-inch stitches all around the perimeter. Leaving a couple of the sheetmetal screws in at first helps ensure the panel stays put and that the car's original sheetmetal and the replacement panel remain aligned for perfect butt-welding.



21

Nyle Wing alternates the weld stitches around the panel until the entire perimeter is filled. Alternating the welds prevents warping from too much heat building up in one area. He's using a MIG welder, which is preferable for sheetmetal like this.



22

Here's the fully welded replacement floorpan installed, including the drain hole cut out and massaged to provide the factory-radius appearance that was punched out during the stamping process.



23

From the bottom, the new pan looks great, and it is as strong as new. Structurally, the car doesn't need further welding or metal work. The new pan was welded to the cross brace with rosette welds from the top. The shop advises that, for this job, once the finishing work is done to the welded areas, the non-factory seams will be undetectable. But depending on the level of restoration, further finishing could be done around the edges.



24

With the driver's floorpan installed, the passenger-side pan needs to be replaced—and then it's on to the rest of the car. It's a seriously perforated Pontiac that's being restored as a labor of love, not for financial gain. 

## SO... YOU WANT TO START WELDING

**Welding is as much an art form as it**

is a skill, and no matter how you approach it, practice and experience are the only ways to become proficient at it. Not surprisingly, many enthusiasts are reluctant to make the investment in a welder, for fear that their trepidation in learning the skill will relegate the unused machine to the corner of the garage, like a 220-amp treadmill.

There isn't a single welding process that covers every task, but certain types are more likely to be encountered in the types of projects associated with working on cars. Here's a quick rundown:

**Shielded metal arc welding**—also known as “stick welding”—It's the most basic of welding types and is typically what many people use as their first foray into the craft. Also known as arc welding, it simply uses an electric current flowing from a gap between the metal and a flux-coated electrode. It's used often in construction or heavy repair, and because it doesn't rely on shielding gas, it can be used outdoors and can't be used with anything thinner than 18-gauge sheetmetal.

**MIG welding**—“MIG” stands for “metal inert gas,” and the process involves a wire-welding electrode on a spool. An arc created by the electrical current between the metal and the wire melts the wire to join the metals. It's a relatively easy skill to acquire, although it takes experience to learn optimal temperatures and stitching procedures. It's also a clean process, with little or no spatter, and it can be used on thin or thick metals alike.

**TIG welding**—“TIG” stands for “tungsten inert gas” and is an arc welding process that uses a tungsten electrode to produce the weld. The tungsten does not create the filler, like the wire in MIG welding, and with some processes, isn't needed. TIG welding is generally the best for joining thin sections of metal and non-ferrous materials such as aluminum and magnesium. It is more complex than MIG welding and more difficult to master.

**Bottom line:** A MIG welder will handle just about all the automotive hobby projects you'll encounter. It's the just-right tool between a basic stick welder and the more-complex TIG welder.

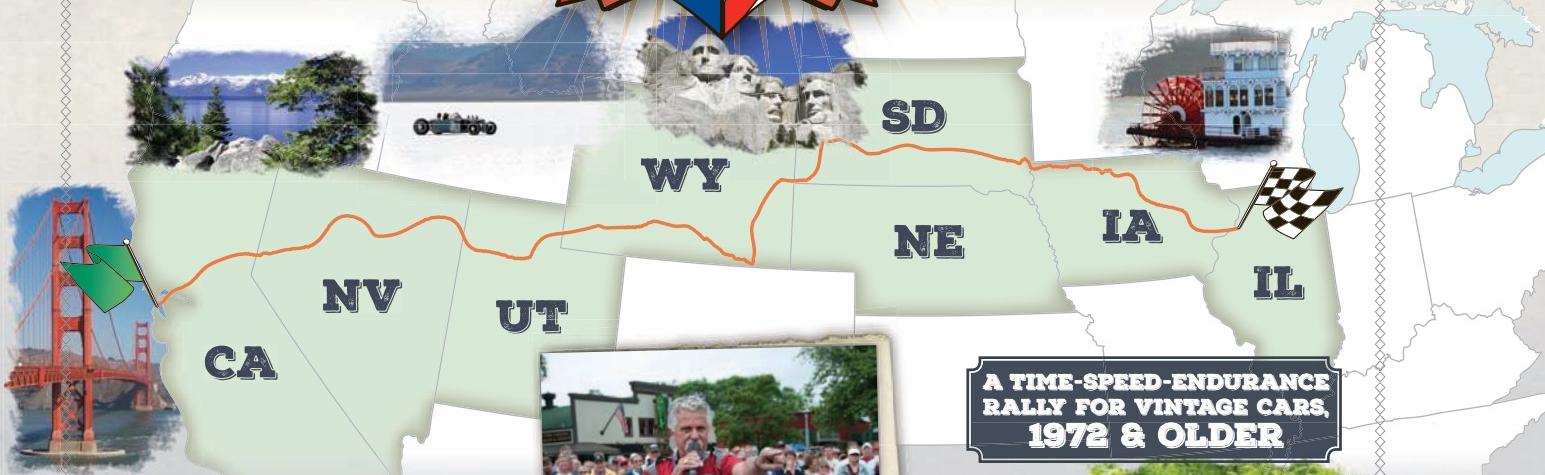


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# TO ONE AND ONLY

*Artist Frank Kozik  
doesn't care what  
you think of his street  
machine 1969 Dodge  
Charger R/T*



By Daniel Strohl

Photography by Randy Dodson and Daniel Strohl • Restoration photography courtesy of Frank Kozik

**W**hen looking through the engine bay of Frank Kozik's 1969 Dodge Charger with him, he sounds more like a teenage boy than an accomplished businessman and multi-disciplinary artist with a worldwide following.

"I didn't follow any rules when I built it," he says. "I just wanted it to be sick. Like that Moroso fuel log—it's not necessary, but I thought it looked badass in there."

Which only makes sense for him. Kozik, who arguably got where he is today by thumbing his nose (to put it politely) at any notion of accepted business and artistic practices, says he simply wanted to build the same car that he would have built if he were 17 again and had the money to build it his way.

But that's not to say the Charger's build proved smooth sailing.

To begin with, Kozik, who lives in an apartment in San Francisco, needed the space to work on it. His apartment building offered just enough garage space for its six tenants, but over the span of several years, he convinced all but one of the other tenants to sign over their spaces to him as they moved out. All consolidated, he now has plenty enough space for working on cars away from his studio.

Next, he needed to make sure an old car would be okay with his wife, Sharon. "She started watching *Bullrun* when that came on TV, so in 2008 she said to go ahead and get one."





Her only requirements: no roll-bar, no blower sticking up through the hood and no color other than black. Other than that, Kozik got carte blanche.

Then came finding the right car. Kozik always wanted a 1968-1970 Charger—an R/T with a manual transmission—and of all the Chargers he looked at, he found only one real R/T in Northern California. It had severe rust issues, no interior, and Kozik suspected the guys selling it were doing so to fund meth habits, but the car was legit and the sellers even offered to take care of the necessary bodywork for Kozik.

"That was part of the deal—they said they did some 'amazing' bodywork,' but really they just

slabbed a trunk in it and drove it down here themselves," Kozik says. "I overpaid for it, but whatever—it was a real R/T four-speed, and it was what I wanted."

The fender tag indeed confirmed the Charger as a Y-2 Yellow R/T powered by the 375-hp 440 with a four-speed and a black vinyl bucket-seat interior and little else other than an AM radio. It was even ordered sans exterior stripes. Though the fender tag includes the "Y09" built-for-export code, Kozik says the farthest it got from Hamtramck was Hawaii.

The teardown not only revealed the sellers' "amazing" rust repair work, but also what they didn't get around to telling Kozik about the

car. The 440 in the Charger, while in running shape, wasn't original to it, the car had taken plenty of abuse in general over the years, and "the front rail just fell off when we took the car apart," he says.

So, up went the car on jack-stands for the next nine months. Kozik and his friend Bill Pappas replaced the subframe rail with one sourced from a junkyard, but decided to leave the hastily installed trunk in place and simply cover it with Dynamat. "I used a lotta Bondo that first time around," Kozik says. They replaced a few other things, got the 440 in the car running right, gave the whole car another coat of flat-black paint, and put the Charger on the road.

**The braided lines,  
the rocker covers,  
the fuel log —  
all selected in  
accordance with  
Kozik's goal of  
building the dream  
car he would have  
built at the age of  
17 if he had had  
the funds.**





With multiple-leaf-spring packs in the rear, the Charger certainly looked aggressive, but it hopped around like mad. Low 4.56 gears made driving any distance a hassle. And some solid aluminum multi-piece wheels gave it an early 1990s vibe. Nevertheless, Kozik enjoyed cruising around in it.

For all of three months, until a fellow Bay Area driver rear-ended him.

"It was actually lucky for me," Frank says. "My insurance guy said

'okay, you can have it,' so I got to tear it all down to almost nothing and build it all back up again the right way."

Before that, though, the insurance adjuster told Kozik that the repairs to the Charger would be expensive. The accident caved in the rear bumper and decklid, busted out the rear glass, messed up the tailpanel and the exquisitely installed trunk floor, and rippled the quarter panels.

So for his second build of the

Charger, Kozik decided to do his homework first. He hung out at the various online Charger forums, ordered as many manuals as he could for the car, bought himself a sandblaster and a lift, and ordered every part he needed or wanted for the car before disassembling it. "That really made the second resto much easier," he says.

Replacement sheetmetal all came from AMD, but Kozik, Pappas and their crew didn't simply cut out the

**Real 440 four-speed Charger R/Ts don't exactly hang out on every street corner, so Kozik stuck with this one, despite the rough shape he found it in and despite a rear-end collision that threatened to total it.**



**A lot of people think because I'm in San Francisco and** drive a black Charger that I'm a big *Bullitt* fan. Or sometimes I get the whole *Dukes of Hazzard* thing. But really, those had absolutely no influence on me. What I think did have more influence was the car that the evil villain Frank in *Blue Velvet* drove.

I came to the States at 17 and immediately got into these old muscle cars that were all around for cheap at the time: a big-block Nova for \$300, a '69 GTO for \$900. But one of my high-school buddies had a Super Bee; he was king of the neighborhood, and a big B-body was always to me the epitome of the muscle car, so I always wanted one of my own. —Frank Kozik

old and weld in the new. Instead, they braced the tailpanel to the back of the C-pillar structure and began to carve, removing the entire quarters all the way up to the roof seams and all the way forward to the door pillar, exposing the entire inner structure of the car. While cutting, they discovered that the wheelwells and roof were fine, so they kept those and pieced the rest of the back end of the car around them. "I used whatever was functional off the old car and salvaged it," he says.

This time, Kozik decided to finish the whole car in metal, foregoing body filler except where absolutely necessary. Every seam got leaded and every ding got bumped. He recruited his friend Ralph Britten to help and covered all the bodywork in sorta-on-purpose "tiger stripe" black: one coat of primer, two coats of flat black and one coat of clear, all hit with a "stink block"—an abrasive block restaurants use for cleaning grills—between applications. Aside from a handful of badges and some window chrome, he only adorned it with a white bumblebee stripe.

Since completing the paint about

five years ago, Kozik says he's had no problems with the salt air coming off the Pacific, largely because he religiously wipes the car down with Gibbs penetrating oil after every outing.

Kozik left the interior pretty much stock, with the exception of a complete layer of Dynamat under the carpet (and a Rhino Lined trunk "just so I can toss sh-t in it and actually use the car"), a Hurst shifter, a tachometer modified to work with electronic ignition, YearOne leather inserts in the seats, and a leather-wrapped steering wheel. "When I was a teenager, that was my favorite thing," he says. His professional experience with vinyl toys gave him a leg up when it came to repairing and painting the various plastic bits inside the Charger.

From there, Kozik says he intended to upgrade everything mechanical. He had the engine rebuilt by Baca's Speed Shop in South San Francisco with an 11.5:1 compression ratio, up from the stock 10.0:1 ratio. He fitted Edelbrock Performer RPM heads and an Edelbrock Performer RPM intake manifold to the 440, as well as a pair of what he refers to as "cheesy '80s Pro/Stock rocker covers."

Atop the intake he bolted a Pro-Form 850-cfm four-barrel carburetor. "It sucks when it's cold, but it's

great when it warms up," Kozik says. To the front of the block he bolted a March belt drive system turning the alternator, mechanical fuel pump, mechanical fan and power-steering pump—the latter added to the car, Kozik says, because Sharon would be driving it from time to time.

The entire ignition system consists of MSD parts: coil, distributor and 6AL box. He topped the engine off with a K&N air filter and added some braided stainless hose covers "just to bum people out," he says. A mechanical fuel pump feeds the aforementioned Moroso fuel log. Underneath, a Moroso oil pan keeps the dinosaur concentrate from spilling out onto the streets of San Francisco.

Dyno figures on the engine show a decent gain over stock: 402 hp and 414-lb.ft. of torque at the wheels at about 5,100 RPM. "It makes for a really good response on the street," Kozik says.

In between the 440 and the car's rebuilt A-833 four-speed manual transmission sits a Centerforce clutch and a Lakewood scatter-shield. In between the four-speed and the 4.56-gear Dana 60, Kozik added a safety loop around the car's original driveshaft.

For the exhaust, Kozik went with 3-inch-tube TTI headers breathing

**Neither built for show nor for race, the Charger instead satisfied a years-long itch for a badass black B-body for the boulevard that'll still burn the balonies at a moment's notice; in the end, it became more a piece of artwork than a muscle car.**



through Dynomax mufflers. Along the way, a pair of electric exhaust cutouts allow him to uncap the exhaust for a little extra noise.

The chassis, too, got a litany of upgrades. Kozik began by welding all the seams and the corner boxes and installing subframe connectors to stiffen the unit-body structure. To cure the wheelhop from the car's former iteration, he installed mono-leaf rear springs guided by CalTracs traction bars. "It's really hard to do a burnout on this now," Kozik says. "It just wants to launch."

On all four corners he installed QA1 shock absorbers, and in the rear he added an anti-roll bar to balance the one in front. While he had the suspension out, he welded reinforcements to the lower control arms to keep them from flexing in conjunction with the adjustable tubular chrome-moly upper control arms. "It takes a corner nice now," Kozik says.

He figured he needed plenty more braking to match the added power, so he installed Stainless Steel Brakes disc brakes at all four hubs as well as a vacuum booster. He also added a Corvette master cylinder and a Camaro proportioning valve. However, he soon found out that he doesn't need to follow the popular car magazine recipes for brakes: They actually worked better with the vacuum booster setup disconnected, and he feels the rear disc brakes didn't help at all with slowing the car down—not enough to make their purchase and installation worth his time.

Finally, the wheels, though they look like stock cop wheels, are actually custom-built 15-inchers—8 inches wide in the front and 10 inches wide in the rear (factory slotted police wheels were 15 x 7 inches)—finished off with era-correct reproduction "dog-dish" hubcaps.

Because he laid everything out ahead of time, the second build on the Charger took just four months, Kozik says; final assembly only took a day and a half. And he hasn't shied away from driving it since, though the tall gears still limit how far he can go.

"In a way, it's kind of like an art project," he says. "It's not like this is some kind of gem; I just wanted it to be sick."

Still, he can point to a few things

## 1969 DODGE CHARGER R/T SPECIFICATIONS

### ENGINE

<i>Block Type</i>	1969 Chrysler RB-series 440 "HP"; cast iron
<i>Cylinder Heads</i>	Edelbrock Performer RPM aluminum with 2.14/1.81-inch valves
<i>Displacement</i>	440 cubic inches (currently 446 cubic inches)
<i>Bore x Stroke</i>	4.32 (plus .030-inch overbore) x 3.75 inches
<i>Compression Ratio</i>	11.5:1
<i>Pistons</i>	Diamond-brand forged
<i>Connecting Rods</i>	Eagle H-beam
<i>Horsepower @ RPM</i>	402 @ 5,100 at the wheels (estimated 460 at flywheel)
<i>Torque @ RPM</i>	414 @ N/A
<i>Camshaft Type</i>	Edelbrock hydraulic flat-tappet with 238/246-degrees duration @ .050, .480/.495-inch lift, 110-degree lobe-separation angle
<i>Induction System</i>	Edelbrock Performance RPM aluminum intake, ProForm 850-cfm four-barrel carburetor
<i>Fuel System</i>	Mechanical high-volume fuel pump
<i>Lubrication System</i>	Wet sump with Moroso oil pan and Chrysler external gear-type pump
<i>Ignition System</i>	MSD billet electronic distributor, Blaster II coil and 6AL box
<i>Exhaust System</i>	TTI tubular headers and 3-inch exhaust system with Dynomax mufflers and electric cutouts
<i>Original Engine</i>	Chrysler 440 Magnum

### TRANSMISSION

<i>Type</i>	Chrysler A-833 four-speed manual with Centerforce clutch
<i>Ratios</i>	1st 2.65:1 2nd 1.93:1 3rd 1.39:1 4th 1.00:1 Reverse 2.57:1

### DIFFERENTIAL

<i>Type</i>	Dana 60 9-3/4-inch with Sure-Grip limited-slip
<i>Ratio</i>	4.56:1

### STEERING

<i>Type</i>	Chrysler recirculating ball, power assist
<i>Ratio</i>	16:1

### BRAKES

<i>Front</i>	SSBC 11-inch disc with four-piston calipers
<i>Rear</i>	SSBC 10.5-inch disc with single-piston calipers

### SUSPENSION

<i>Front</i>	Chrysler B-body independent with tubular adjustable upper control arms, QA1 adjustable shocks and anti-roll bar
<i>Rear</i>	Chrysler B-body leaf-spring-type with Calvert Racing split mono-leaf springs and CalTracs bars, QA1 adjustable shocks and aftermarket anti-roll bar

### WHEELS AND TIRES

<i>Wheels</i>	Chrysler-style police steel wheels; custom made by Stockton Wheel
<i>Front</i>	15 x 8 inches
<i>Rear</i>	15 x 10 inches
<i>Tires</i>	Firestone Firehawk
<i>Front</i>	245/60-15
<i>Rear</i>	275/60-15

### PERFORMANCE

*Not yet tested*

he'd have done differently, even after all the planning and effort that went into the Charger's build: He'd have swapped in a five-speed transmission, he'd have kept the brakes

simpler, and maybe he'd have installed the dual-carburetor intake manifold he's since located.

Because, after all, an artist's worst critic is himself.



For video, go to  
[blog.hemmings.com](http://blog.hemmings.com) and search  
"Kozik" and  
"Charger."



## GIVE ME THE HEADS UP!

**Q:** I always look forward to your two columns in HMM. You are always teaching me something.

I have a question about a street-driven 1968 Pontiac Tempest with a 400 and four-speed that I am building. I want to build a strong-running street car with excellent dependability and I'm not looking for every last horsepower. It will not be raced. I plan on driving it on multiple cross-country trips and I do not mind using premium fuel. I have a set of 1969 #62 heads with 78-cc and 1975 5C heads with 98-cc chambers. I am also considering Edelbrock aluminum heads, but my concern there is long-term durability and head gasket longevity. I know the iron heads will be bullet-proof for years. I basically want to build it and not ever have to worry about it. What are your recommendations?

Peter H. Bauer  
Sussex, Wisconsin

**A:** First, I would like to thank you for the kind words about my work with HMM. I also want to debunk a myth that aluminum cylinder heads are unreliable. As long as the surface (deck) of the head and the block are finished properly (the correct profile) for the head gasket used, there is no concern for durability. With that stated, I will now give you my advice.

I would stick with either set of the Pontiac cast-iron heads instead of investing in new castings.

I never like to take a new cylinder head out of the box and install it. I go through the valve job and make it the way that I want, along with setting up the valve springs for the cam I am using. Thus, you are going to spend some money on making the new heads correct for your engine and this would be added on to the cost of buying them. Throw in that it is more fun to use factory parts (at least from my point of view), and I vote for the old castings.

Given the age of the Pontiac cylinder heads, I would fully check out each set before deciding which one to use. I would Magnaflux test for cracks,

visually inspect the guides and seats, measure the intake runner volume and combustion chamber volume and, if possible, flow test each. The decision may be made for you, since you may find something wrong with the decades-old castings.

If both sets of cylinder head castings check out fine, I would use the one that has the best intake flow (if tested), the smallest intake runner in volume and with a combustion chamber that would allow for the engine to have a 9.0:1 compression ratio with a flat-top piston and a zero deck height. That describes the crown of the piston flush with the block deck, with the piston at TDC. It is called a "zero deck" engine. Most production engines have the piston about 0.020-0.050-inch down in the bore or hole at TDC. This is called a negative deck height. If the piston protrudes from the bore at TDC it is identified as a positive deck height.

I like a zero deck, since it creates more in-cylinder turbulence for better power, along with reducing the engine's octane requirements for a given cylinder pressure. It is a better way to build an engine.

Once the math is done to figure out the compression ratio with the flat-top or even slightly dished piston, then the cylinder head choice will be clear, since there is a large difference in combustion chamber volume in the two castings you have.

Even though you did not ask, I suggest using a very mild hydraulic roller camshaft with good vacuum and idle characteristics, a dual-plane intake manifold and a small carburetor in the 650-cfm range with a vacuum secondary. The small carburetor will provide the best driveability and fuel economy, since it will do a better job of atomizing the fuel at cruising speed when the velocity through the engine will be low. I would round it out with a good copper/brass high-flow radiator and a 180-degree F Robertshaw Balanced Flow thermostat.

The last thing I would add is a Rand McNally road atlas in the back seat (no modern GPS stuff), throw away the cell phone and hit the road! It will be as close to 1968 as you can get. Have fun and be safe.

## GET TO THE POINT(S)!

**Q:** A friend and I are working on a "day two" restoration on my 1969 Road Runner. When I bought it, the engine had an Accel distributor (part #34302), which I

would like to keep. My buddy wants me to replace it with a Chrysler electronic ignition setup. Apparently, Pertronix doesn't service this particular aftermarket distributor. Is there another option? Frankly, this will not be a daily driver, so if I kept the system the way it is, that would be no big deal.

Thanks for any information you can give me,

Mark Ellsworth  
Phoenix, Arizona

**A:** If my memory is correct, that Accel distributor is a dual-point without a vacuum advance unit. Whether I am correct or not, the decision is yours, since from your letter there seems to be nothing wrong with the distributor.

Many years ago I installed quite a few of the then-offered Chrysler electronic ignition conversion kits from what was called Direct Connection. The kits were excellent, because they were all OE quality, since at that time the same parts were going into new Mopars rolling from the assembly line. I do not know anything about the quality of the new kits, since there has not been a Chrysler with a distributor or carburetor made for almost 30 years now.

The Chrysler electronic ignition system was not that powerful anyway, since it still used a ballast resistor and operated on low voltage, unlike the GM HEI, which was like an arc welder. So, to tell you the truth, the engines I installed the kit on back then did not run any differently or better with the electronic system.

So we now come full circle. If you do not mind setting points once a year and you can still get the breakers and you are happy with the way the car runs, I see no need to change. If any of these are an issue, then you can change to the Chrysler system or use the breaker points to trigger an electronic box such as an MSD 6AL. The points will then last forever, since they will only be used as a switch and will carry very low current. It is the current that wears the breakers with a conventional ignition. So I will make an executive decision and defer the choice to you!



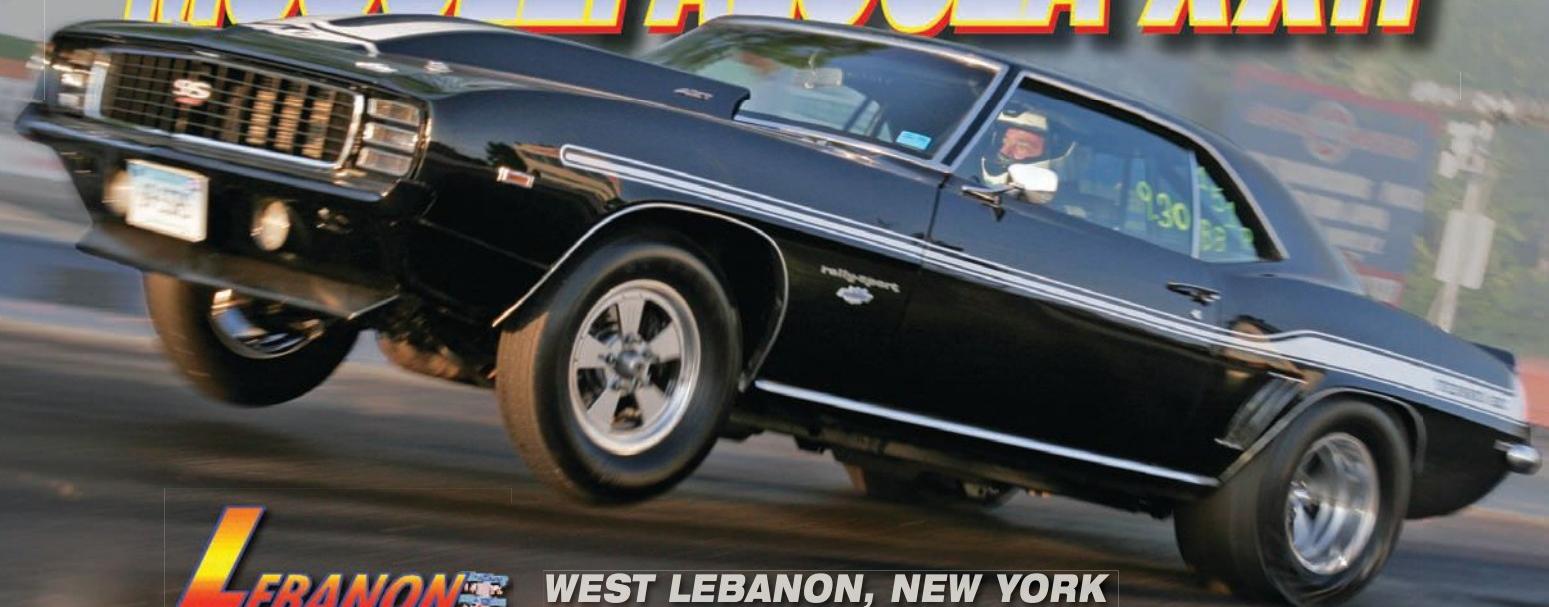
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## EGR OR NOT?

**Q:** I am restoring a car that belonged to my dad, who has passed away. It is a 1973 Buick Electra 225 coupe with the 455-4 Buick engine. I remember when my dad brought it home, even though I was only about five years old. He would put me on his lap and we would drive around the back country roads. What wonderful memories!

The Buick has an EGR valve. I know you have written on this before a number of years ago, but can you tell me what it is for, how it works and do I need it on the engine? Many people say I should throw it away, but that seems to make no sense.

Thanks and keep up the good work!  
*Ben Marks  
Ocala, Florida*

**A:** The term EGR stands for exhaust gas recirculation. It is a pollution control device that is used to reduce the oxides of nitrogen emissions (NOx) from the engine. NOx is created through pressure, heat and exposure time. By introducing it into the cylinder exhaust gas, which is inert, it acts as filler for combustible mixture. Even though the exhaust gas is hot, it is cooler than the burn temperature of a combustible mixture, and hence, lowers the temperature in the bore. If the leading-edge flame temperature can be kept below 2,500 degrees F, then the amount of NOx produced is greatly reduced. It is still present, but there is less of it.

EGR is evoked during part-throttle and light-load cruising when the mixture is the leanest and NOx production would be the highest. There is no EGR feed to the cylinders at idle or full power.

You can determine if the EGR valve is still good by using a hand-held vacuum pump to see if the pintle moves and the diaphragm is not ruptured. If it is good, there is no reason not to keep it. Another important test for the valve is to make sure that it seals. This can be done by turning it upside down and spaying a thin liquid on the pintle – it should not leak past. Carburetor cleaner works great for this test. Also, make sure that the passage in the intake manifold is not carboned closed or almost closed. If the passage is clogged, pull off the intake manifold and clean it out along with the exhaust crossover, if so equipped.

If the valve went bad, then I would

probably eliminate it. You can keep it in place and put a small BB in the vacuum line so that it can look factory, but no vacuum will go to it. You may be wondering why I did not suggest getting a replacement. At this time, any EGR valve you will buy will be a generic version with the wrong flow rate. The EGR system, much like a PCV, was a calculated and designed flow rate, and the aftermarket often does not acknowledge that. The valve you would buy would either flow too much or too little and thus, may cause a driveability or tuning issue. Just because it fits on the engine does not mean that it is correct. Properly functioning factory parts are usually the best choice.



## IT IS NOT RAINING!

**Q:** I recently washed the engine on my 1984 Camaro with intermittent windshield wipers at a self-service car wash. When I got done I turned the wipers on to clear the glass and then, even though I shut the switch off, they kept working. I needed to go under the hood and unplug the wires to the motor. I put the car away for two weeks and then decided to look at the system. I plugged it back in and all is fine. Was it a fluke or is there a potential problem hiding? Thanks.

*Paul Thomas  
Des Moines, Iowa*

**A:** I wish they were all as simple as this. The GM wiper system has battery voltage supplied constantly, and the ground is switched on and off. The circuit board must have gotten wet and was shorting to ground internally in the unit. That is why it ignored the position of the switch when you shut it off. It was receiving a ground path through the water. Once the water evaporated, the ground path was no longer there, and then the system worked fine. No ghosts or pending issue, just a wiper motor control board case that is not sealed as well as it used to be.

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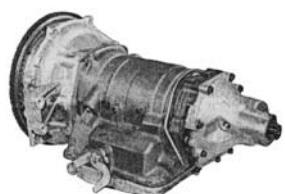
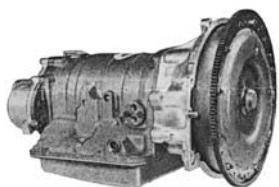
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Photography courtesy of the manufacturers



## HMM PRODUCT TEST: POWER SHEEN TIRE TREATMENT

**T**here are plenty of tire dressing products on the market, most work similarly, varying slightly in the level and longevity of their shine. When the PowerSheen tire cleaning/coating system showed up, we were a bit intrigued by its claims of being a "revolutionary, innovative technological breakthrough in long lasting tire shine," one that uses no oils or other fluids that lay on the surface. It's even made in the USA. So we put it to the test.

The kit includes two products: PowerSheen Tire Prep and Cleaner and PowerSheen Tire Brite. The packaging stresses that you must follow the directions, and the directions stress that the tire sidewall must be clean. We were about to start a photo shoot on a restored Challenger, and handed the kit to its owners, who seemed attuned to detail products. The cleaner instructions advise that any silicone residue from other products must be cleaned off first, which the PowerSheen Cleaner will do, though multiple applications may be necessary, according to the instructions. Our test tires hadn't been treated with silicone, so one scrubbing with the Cleaner took care of it, and left our car owners suitably impressed. The formerly hazy tires looked like fresh rubber—good enough that we could have stopped right there.

Instead, after rinsing the cleaner off and letting them dry, we proceeded with the Tire Brite, putting some on the included foam applicator and then swiping around the sidewalls. One application left a nice, even low-gloss sheen—just what the car owners wanted. PowerSheen says that, if so desired, further applications will increase the shine. As promised, once the Tire Brite dried, there seemed to be no residue and nothing to fling off onto the body. The owners then treated their rubber bumper trim, and continued to be impressed. The end result is said to be a "fully cured bonded elastomeric coating that lasts for months..." We don't know about that just yet—time will tell—but our car owners wanted to know where to get some, and we think we'll be using it again soon as well. —Terry McGean

**Cost:** \$24.95 (kit with 16-oz Cleaner and 6-oz Tire Brite)

**Contact:** Sheen Coatings Company, 888-817-8777, [www.powersheen.com](http://www.powersheen.com)

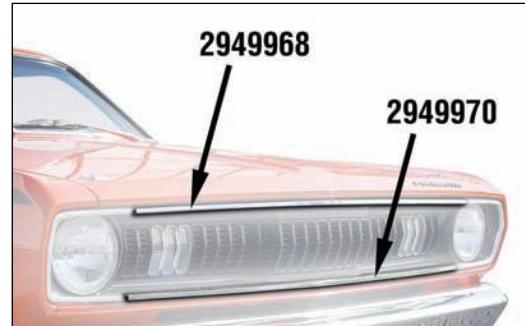
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## BIRD BUCKETS

If your late second-generation Firebird's cloth seats are getting ragged, Legendary Auto Interiors can assist with new bucket-seat covers for 1979-'80 Firebirds and Trans Ams. The covers were developed to appear authentic and, like the originals, are available in Hobnail and Lombardy cloth, in black, light blue, dark blue, carmine and camel tan. To ensure you get the right interior for your Firebird, request a sample. Cost: \$519 Hobnail; \$389 Lombardy. Contact: Legendary Auto Interiors, 800-363-8804, [www.legendaryautointeriors.com](http://www.legendaryautointeriors.com)



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Classic Industries will help brighten up your 1970-'72 Plymouth A-body with new grille moldings. The upper and lower outer grille moldings, reproduced from aluminum to match original specifications, are intended to fit the Duster, Duster 340, Duster Twister, Valiant and Scamp models, both original and OER grilles, including the "shark-tooth" grille found on Duster 340 and Twister models. The moldings attach to the upper and lower edges of the grille using mounting hardware (included). Part number 2949968 is for the upper, and 2949970 is for the lower molding. Cost: \$130 each. Contact: Classic Industries Parts & Accessories, 855-357-2787, [www.classicindustries.com](http://www.classicindustries.com)



## TIRE MINDER

**Tire pressure is often overlooked, but it is a critical factor in every kind of driving, especially at the track.** To make sure you get the perfect traction, ride and handling out of your tires, you must maintain the appropriate pressures. That means you'll need a tire pressure gauge, and Summit offers an Auto Meter unit that should suit well. The gauge features a mechanical pressure-release valve that retains the last measurement until pressed, plus a large 2.25-inch dial, with rubber shock boot to prevent erratic readings. The gauge will hold up to the rigors of the track, using solid-state electronics with signal conditioning circuitry for temperature and calibration compensation for high-precision readings within +/- 0.25 percent. Available in 0-40, 0-60 and 0-100 psi versions, the gauge uses a 9-volt battery and features a power-down mode to conserve battery life. The 24-inch-long steel braided hose with swivel chuck will ensure easy operation and use. Cost: \$29 (0-60 psi). Contact: Summit Racing Equipment, 800-230-3030, [www.summitracing.com](http://www.summitracing.com)



## DRY FILTER CLEANING

**If you're running one of Airaid's premium dry-air filters,** check out Airaid's dry-filter cleaning solution, formulated to clean without breaking down the synthetic filter media in Airaid dry-air filters. The solution breaks up dirt and other contaminants to restore airflow and performance. It's recommended for cleaning filters, specifically Airaid Performance filters, every 15,000-25,000 miles when operating conditions are normal, more frequently when off-roading. Cleaning is simple: As you remove the filter, spray liberally and let the formula soak in, then rinse with clean tap water. Cost: \$9.00. Contact: Airaid Filter Company, 800-498-6951, [www.airaid.com](http://www.airaid.com)

## POWER PUMPS

**Electric fuel pumps aren't just for fuel-injected engines.** Mr. Gasket offers a line of Micro Electric Fuel Pumps for a wide range of domestic gasoline, ethanol, methanol and E85 fuel applications intended to provide auxiliary fuel flow for carbureted engines, helping to combat vapor lock by providing reliable fuel delivery. Each unit has a self-priming gravity-fed pump, featuring a low-amperage-draw design ideal for fuel delivery in carbureted vehicles. The flow rate is 35 gallons per hour at 4-7 psi, and it is universally compatible with all carbureted, 12-volt negative-ground electrical systems. Comes with all fittings and hardware; installation can be performed with hand tools. Cost: \$51. Contact: Mr. Gasket, 216-658-6413, [www.mr-gasket.com](http://www.mr-gasket.com)

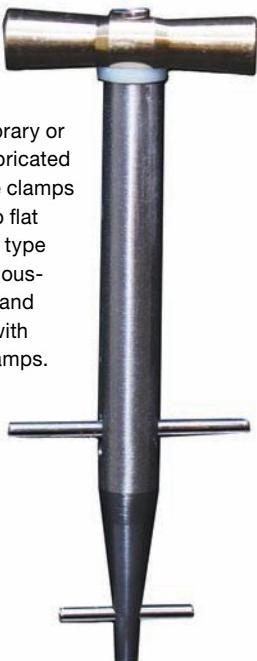


## RADAR LOVE

**Not that we condone exceeding the posted speed limit, but you may** be interested to know that Rocky Mountain Radar has a new combination radar/laser detector and radar/laser scrambler. RMR-C495 uses a Monolithic Microwave Integrated Circuit that blocks internal signals from leaking out of the antenna, making the unit undetectable. The sensitivity is increased on K and Ka Bands, extending the range to as far as five miles, while putting an end to false alarms. It stops X-Band detection, virtually eliminating detection of all door openers — a problem for radar detectors in the past. The device utilizes a dot-matrix, scrolling LED display, which can be seen in all lighting conditions, and includes bilingual voice alerts with "Intelli-Voice," which alerts on new targets only. Cost: \$349 (add \$15 for camo). Contact: Rocky Mountain Radar, 915-587-0307, [rockymountainradar.com](http://rockymountainradar.com)

## CLAMP CHAMP

**ClampTite is a new tool that** quickly replaces ineffective or damaged hose clamps with a temporary or permanent clamping mechanism fabricated from stainless-steel safety wire. The clamps form a true 360-degree seal, with no flat spots, and can be used to band any type and/or size material. Works with various-size wires, and can eliminate space and strength issues often encountered with screw-operated worm-gear-type clamps. The ClampTite is machined from stainless steel and aluma-bronze, plus it is a little under 6 inches in length, so it fits easily among your other tools. Cost: \$29.95 and up. Contact: ClampTite, 800-962-2901, [www.clamptitetools.com](http://www.clamptitetools.com)



By Jim Kreuz with Ed Heys

Photography courtesy of Tom Dankel and Jim Kreuz

# THE DÉJÀ VU G.T. 350

Repeat encounters with a '69 Grabber Yellow Shelby

**B**ack in 1970, when Tom Dankel was seven years old, his father took him to the New Westminster May Day Parade, put on by Musgrave Ford, a Vancouver, Canada, dealer. On this day, young Dankel would fall in love with muscle machines, in particular a 1969 Grabber Yellow Shelby Mustang G.T. 350.

The Shelby had been delivered to Fogg Motors in New Westminster, British Columbia (B.C.), Canada, with a 351 Windsor and four-speed transmission. The original owner entered the G.T. 350 in the parade, and Dankel was astute enough to snag a photo of himself near his "first love" on Water Street.

He and his father were there that day showing their 1967 Lime Gold Mustang GT fastback equipped with a K-code, 271-hp, 289-cu.in. engine, also purchased from Fogg Motors. Our growing "Shelby Stalker" continued to admire this unobtainable 1969 Grabber Yellow fastback from afar, snapping photos 10 years later at a car show in Burnaby, B.C., and at Westwood Mountain High Raceway in Coquitlam, B.C., taken during parade laps between vintage races.

Young Dankel moved on in his life,

eventually accumulating an impressive collection of Shelby Mustangs. Yet he never forgot that first Shelby.

Michael Smith purchased this same Shelby G.T. 350 in May 2007, when he peered out of his son's Little League baseball dugout during a game to announce that he'd just won the car at auction for \$60,000. His wife had no idea he was bidding on it.

The seller was a doctor who was only the car's second owner, having purchased it from the New Westminster, B.C., owner in 1997. The doctor had stored the Fogg Motors fastback in a climate-controlled garage in Indianapolis for the entire 10 years of his ownership—the last five years of which he'd driven the G.T. 350 sparingly. It was time for someone else to have the pleasure of owning this sports car. Smith would later discover to his good fortune that all the original parts were present, either on the car or in boxes.

After driving the Shelby for two years, the Smiths decided to delve into a complete, concours-level restoration. Billups Classic Cars in nearby Colcord, Oklahoma performed the transformation. The total cost of the car was slightly over \$100,000, considering that a set of 1969

Polyester tires with small white "Goodyear" raised-letters cost them \$5,000, a pair of authentic shocks set them back \$3,000, and an NOS battery was another \$5,000.

It was now 2010, and Billups Classic Cars co-owner Jason Billups was pulling an enclosed trailer across the Arizona desert on his way to the Shelby American Automobile Club's 35th annual national convention, held in Sonoma, California, to show the Smiths' restored car. When his truck overheated—with only a few small bottles of water on hand—he transferred the radiator fluid from Smith's Shelby to his truck engine, and drove the rest of the way at a reduced speed. But he made it to SAAC 35.

At that same event was Tom Dankel, who, while strolling through the host hotel's parking lot filled with Shelby Mustangs, eyed a 1969 Grabber Yellow Shelby, a G.T. 350. Surely this wasn't the one he'd fallen for, 40 years ago. Or was it? While pensively checking out the car, his eyes homed in on the Fogg Motors window decal. This sticker is very distinctive because the cursive "F" is identical to that used in the Ford emblem.

Dankel quizzed those nearby, looking for the owners, but they were nowhere



**At right, seven-year-old Tom Dankel takes particular interest in a Grabber Yellow 1969 Shelby G.T. 350 at a 1970 May Day parade. This muscle machine sports a distinctive dealer decal from Fogg Motors in New Westminster, British Columbia, Canada. Above: In 1980, Dankel photographed the same car at Westwood Mountain High Raceway in Coquitlam, B.C.**



**Michael and Darcy Smith currently own the object of Tom Dankel's desire. They treated their 1969 Shelby G.T. 350 to a full restoration in 2009. Dankel kept tabs on the vehicle for over 40 years, and, below, poses with his "first love" at SAAC 35 in 2010. Dankel, the Smiths and Jim Kreuz all share friendship, and a passion for Shelbys and the SAAC.**



to be found. Weeks later, he finally made contact, and the Smiths confirmed that their Shelby was indeed Dankel's "first love." And for Dankel, that first love looked as good as she did 40 years prior.

During the Shelby's judging at SAAC 35, one of the headlamps would not illuminate. That was a big problem because without the lamp functioning properly, they would not have enough points to

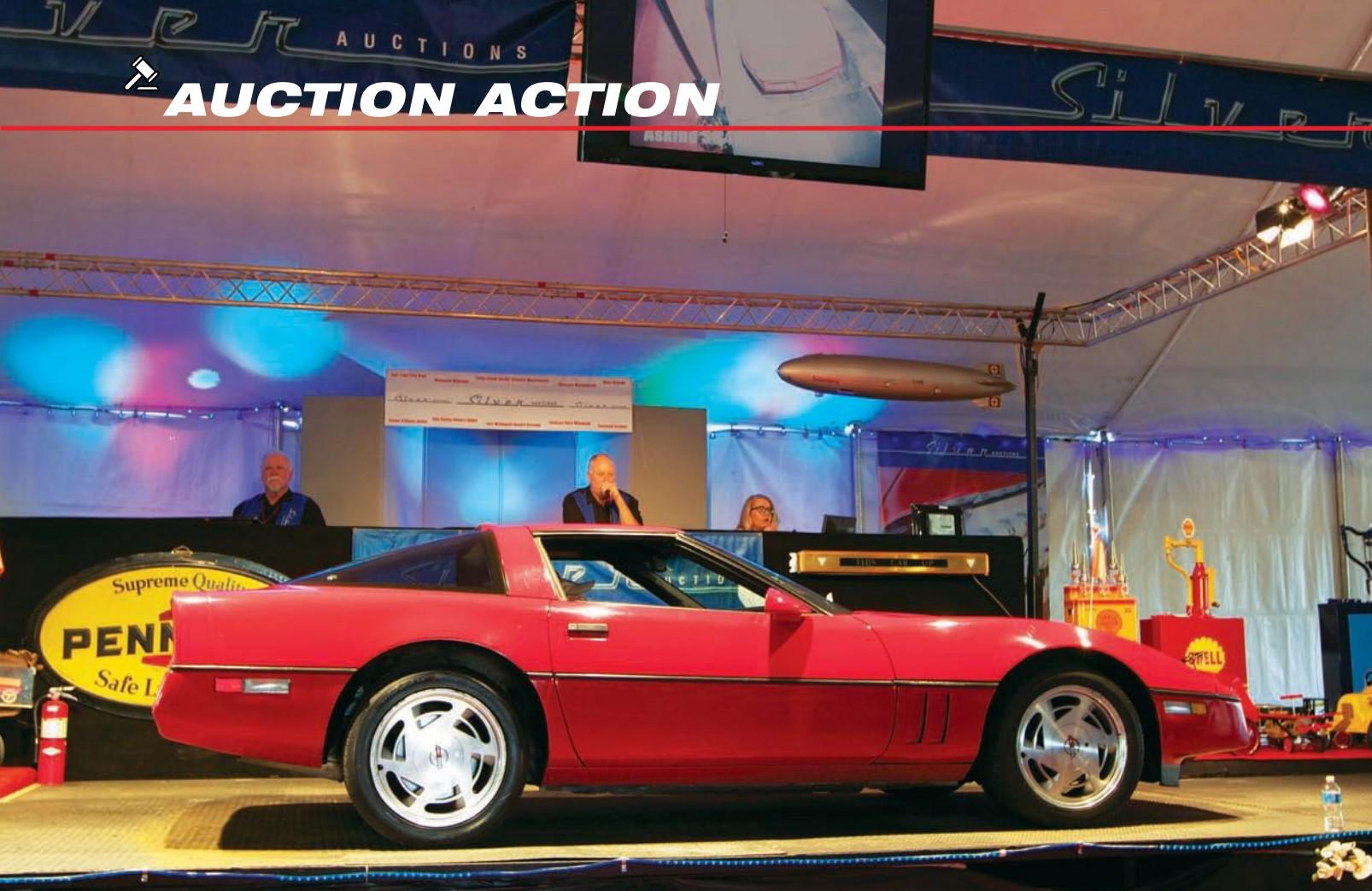
qualify for the Premier Award—the highest restoration recognition in SAAC.

Billups dashed over to the adjoining parts swap meet and located the only date-code-correct set of headlamps in Sonoma for \$350. "A bargain" were his words four years later, though reportedly, those weren't the same words he'd uttered that day.

Smith and Billups won the Premier Award for their 98-plus percent original restoration, a first for both. Billups Classic Cars would also win three more Premier Awards in the next three years, one with Smith's 1969 Shelby G.T. 500 Super Cobra Jet convertible. But that's another story. 



**Do you have photos of your favorite or former muscle car and an interesting story to tell? Please submit digital images (or photographs), comments and contact information to Muscle Car Scrapbook, c/o Hemmings Muscle Machines, attention: Ed Heys, P.O. Box 2000, Bennington, Vermont 05201 or e-mail Ed Heys at [eheys@hemmings.com](mailto:eheys@hemmings.com).**



# SILVER AUCTIONS

Fort McDowell, Arizona, January 15-17, 2015:  
A car auction for the rest of us

**Words and photography by Jeff Koch**

## THE NUMBERS

### TOTAL SALES:

\$3,590,000

### TOP MUSCLE CAR SALE:

1956 De Soto: \$85,320

## UPCOMING AUCTIONS BY SILVER AUCTIONS

**DATE:** September 5-6, 2015

**LOCATION:** Sun Valley, Idaho

**CONTACT:** [www.silverauctions.com](http://www.silverauctions.com)

## LEGEND

### CONDITION:

1=Excellent; 2=Very Good; 3=Average;  
4=Poor; 5=Major Project

### RESERVE:

Minimum price owner will accept

### TOP BID:

The highest offer made  
(but vehicle did not sell)

### SELLING PRICE:

What the vehicle sold for

### AVERAGE SELLING PRICE:

Average market value of vehicles  
in similar condition

**S**ilver's place in the Arizona auction pantheon has always been a hit-'em-where-they-ain't approach: Among the high end of the market, where seven-figure cars are once again not uncommon, Silver aims for the hoi polloi looking to get a square deal on an interesting old car. This year's event saw more than 300 cars to choose from, and with a sale average near \$16,500 (closer to \$11,000 if you factor in the no-sale bids) there's likely something that'll trip the trigger of most car lovers on hand.

In recent years, the Silver Auction in Arizona has really stepped up its game—to the point where a trip out to Fort McDowell feels well worth the effort. It's 20 minutes' drive from the rest of the

auction maelstrom at the weekend, but a world away in terms of atmosphere. Want to get up close and touch the cars? You can. Want to wear a T-shirt and jeans to inspect the cars, rather than a blazer and an ascot? You might. Want a fat, color printed catalog for your collection? Yeah, well, you can't have everything.

The mix of cars has changed as well. Silver used to feature an awful lot of semi-low-mileage, 10-to-15-year-old luxury-level coupes and sedans that seemed like used cars and were probably estate-sale specials, blown out at no reserve. Now, that genre has nearly been banished altogether, and the Silver event really has the feel of a proper collector-car auction. Sale price is inclusive of the buyer's premium.



## CHEVROLET

**Year:** 1964      **Reserve:** Undisclosed  
**Model:** Biscayne 2-dr sedan      **Top Bid:** \$36,000 (Not Sold)  
**Condition:** Restored/#2      **Avg. Selling Price:** \$9,000

This Biscayne, with a single owner for more than three decades, sported a QB-code 425-hp 409. The question unanswered is, “correct” or “not,” was this car born with this engine and the four-speed transmission that backs it up? It certainly looked the business: no radio, bench seat, pie-pan wheel trims. A top-condition, standard-issue Biscayne two-door sedan doesn’t top the 10 grand mark, even now. If this had been a real 409 car, the owner was probably right to hold on, but if it’s a home-brewed hot-rod, the money offered didn’t sound bad.



## MERCURY

**Year:** 1969      **Reserve:** Undisclosed  
**Model:** Marauder      **Selling Price:** \$15,930  
**Condition:** Original/#3      **Avg. Selling Price:** \$7,450

Unfussed with and sporting a clean interior that seemed better-kept than the exterior or engine bay, this is what 1978’s version of a 1969 car looked like: used but not abused, with patina go-go everywhere you looked. The presentation wasn’t stellar; a detail job would have perked it up considerably. Yet it seemed not to matter, as the sale doubled book value for a car of this one’s condition — the money paid was more in line with the average for a #1 example. Why? Low mileage (advertised under 40,000 miles), 429 power and rarity surely didn’t hurt.



## PONTIAC

**Year:** 1978      **Reserve:** Undisclosed  
**Model:** Firebird Trans Am WS6      **Selling Price:** \$18,000  
**Condition:** Restored/#2+      **Avg. Selling Price:** \$26,000

A fully-restored, Van Nuys-built, locally sold WS6 Trans Am, packed with air conditioning, automatic, power windows and locks, tilt wheel and more. It looked pretty terrific... so why so cheap? It wasn’t a glut of comparable machines: We saw only one other at the event, and it wasn’t nearly this nice. Could it be that the bulk of the second-gen Trans Am’s fans demand that their cars be painted black? Could the idea of a performance car saddled with an automatic transmission and multiple power options seem to make less sense in a resale environment full of low-option four-speed cars? No matter. Buyer scored.



## CHEVROLET

**Year:** 1966      **Reserve:** Undisclosed  
**Model:** Chevelle convertible      **Selling Price:** \$32,940  
**Condition:** Refurbished/#2      **Avg. Selling Price:** \$32,000

“Upgraded.” The most positive way possible to say “not original anymore.” This Chevelle convertible had been upgraded to SS specifications, including a 325-horse 396, M21 four-speed and more. What was here was largely lovely, discounting the flashy aftermarket rolling stock. Our average selling price, printed above, is for a standard ‘66 Chevelle Malibu convertible, rather than what this SS purported to be. And what do you know, the sale price was bang on the average for a Malibu. One wonders how close to the average this car could have sold for if it had been given the same degree of attention, but retained all of its original factory-born equipment.



## PONTIAC

**Year:** 1966      **Reserve:** Undisclosed  
**Model:** GTO hardtop      **Top Bid:** \$43,500 (Not Sold)  
**Condition:** Restored/#2      **Avg. Selling Price:** \$45,000

This teal Tri-Power/automatic ’66 coupe presented nicely, with terrific paint, straight lines, good chrome and precious little to nitpick, inside or out. The only non-stock item we could see, beyond newer tires, was a recently installed R134-refrigerant A/C compressor, which suggests that this car is more of a nice driver than an all-out collector’s piece. Money offered was within five percent of the sales average of a GTO in this condition, and was hardly an insult, but the seller felt otherwise and took his Goat home.



## CHEVROLET

**Year:** 1970      **Reserve:** Undisclosed  
**Model:** Chevelle convertible      **Selling Price:** \$31,860  
**Condition:** Restored/#2-      **Avg. Selling Price:** \$28,500

Another red ragtop that was pretending to be an SS, this example sported older paint and a brace of aftermarket dress-up bits under the hood — air cleaner, rocker covers — that gave it a cruise-night vibe more than a collector-car one. The presentation was clean, but didn’t have a freshly restored look to it. Our average selling price, printed above, is for a standard ‘70 Chevelle Malibu convertible, rather than the SS this poses as. And sometimes it doesn’t matter: Sometimes, just being a red big-block Chevelle convertible is enough.



## PONTIAC

**Year:** 1970

**Model:** GTO Judge

**Condition:** Restored/#1-

**Reserve:** Undisclosed

**Top Bid:** \$53,000 (Not Sold)

**Avg. Selling Price:** \$120,000

A fine-looking GTO Judge, with fresh paint, well-applied fender-eyebrow decals, an engine bay that while not perfect, wasn't far from it, a clean Morrokide interior, and plenty more going for it when we found it in the waning afternoon light. Only the late-model white-letter tires kept it from being an absolute #1 car. Alas, the bidding wasn't there for this particular example; if the crowd was sensing the opportunity to pounce on a bargain, they misjudged this day. Seller was probably right to bring it home again for another go, another day.



## CHEVROLET

**Year:** 1973

**Model:** Chevelle SS

**Condition:** Refurbished/#2

**Reserve:** Undisclosed

**Selling Price:** \$16,200

**Avg. Selling Price:** \$9,000

Another example where we ask, when's the last time you saw one? Only a few cosmetic issues marred this example — a set of so-so tires (easily sorted) and the plastic filler pieces around the bumper (less so) took this one out of number-one contention. We think that the average price is lagging behind reality slightly here. Values of clean Colonade-era A-bodies of all sorts have been simmering for years, and when you stir in a big-block and a four-speed like this one had, making it all the rarer, the money spent looks more and more like a bargain.



## PONTIAC

**Year:** 1996

**Model:** Firebird Trans Am convt.

**Condition:** Original/#1-

**Reserve:** Undisclosed

**Selling Price:** \$11,610

**Avg. Selling Price:** \$7,500

The F-body was enjoying something of a performance renaissance in the 1990s, with its LT1 V-8 happily eating the lunch of modular-powered Mustangs. This ultra-clean automatic example appeared as new inside and out — no nose chips, an interior that shone nearly as brightly as the exterior, and a fray-free white convertible top. Fifty percent above the average? Sure. Either the buyer is betting that LT1 F-bodies are due for a collector revival, or he bought this in lieu of a porky new V-6 Camaro or Mustang convertible that would cost triple this one, and fall in value instantly to boot.



## CHEVROLET

**Year:** 1971

**Model:** El Camino SS 454

**Condition:** Refurbished/#2-

**Reserve:** Undisclosed

**Top Bid:** \$21,000 (Not Sold)

**Avg. Selling Price:** \$24,000

A genuine '71 El Camino SS 454 is not easy to find. This one was well equipped: automatic with console and horseshoe shifter, air conditioning, 4.10 gear in the 12-bolt, proper wheels and more. But it was said to be completely restored in 2003, and while there was effort expended (the paint and vinyl top looked fine), some of it had a quick-and-dirty feel about it: The engine bay was coated in the sort of spatter paint usually reserved for trunk floors, and the interior was done in a 1980s-street-rod variety of gray tweed.

## PONTIAC

**Year:** 1970

**Model:** Bonneville convertible

**Condition:** Refurbished/#2

**Reserve:** Undisclosed

**Selling Price:** \$17,820

**Avg. Selling Price:** \$19,500

Convertibles proved strong throughout the event — perhaps Arizona's mild temperatures put buyers in a top-down type of mood — with many selling at, near, or well above their sales averages. This 455-powered Bonneville ragtop was one of the few that qualified as "near" the sales average — a little lower, but not insultingly so. Clean inside and out, this silver and black Bonnie sported a hood tach that we're pretty sure wasn't factory installed, as well as more recent radial whitewalls. When's the last time you saw one, in any condition, much less one this nice?

## CHEVROLET

**Year:** 1970

**Model:** Nova

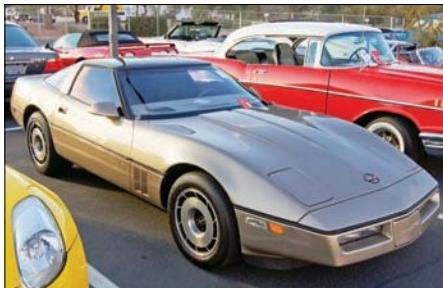
**Condition:** Refurbished/#2-

**Reserve:** Undisclosed

**Selling Price:** \$25,380

**Avg. Selling Price:** \$11,000

A cleanly modified effort with terrific paint, this Nova sported SS stripes and badging, a 396 big-block of indeterminate horsepower, power steering, bucket seats, disc brakes, three-inch exhaust, aluminum radiator, air conditioning, 17-inch Rally wheels and much more. Modified cars are notoriously hard to value; the average price above is for a standard Nova, since this wasn't a real SS. As a fun cruise-night ride, it looked terrific and you probably couldn't have built one yourself for less — plus, you can have fun driving it without worrying about ruining its value.



## CHEVROLET

**Year:** 1984  
**Model:** Corvette coupe  
**Condition:** Original/#3-

**Reserve:** Undisclosed  
**Selling Price:** \$4,428  
**Avg. Selling Price:** \$8,000

History suggests that a 30-year-old Corvette should have taken off in value by now. Yet the '84 Corvette is everything that Corvette owners don't want. The 18-month 1984 model run meant Chevy built more of these than any other year. The problematic Cross-Fire injection is not loved. The paint here was original, but it was sun-faded and chipped. Aftermarket louvered taillamp covers lived in the tail, and the so-so tint job didn't help. It had been driven plenty, judging by that nearly bald front tire. So it was not rare, not fast and not original. History has been proved wrong.



## De SOTO

**Year:** 1956  
**Model:** Firedome convertible  
**Condition:** Restored/#2

**Reserve:** Undisclosed  
**Selling Price:** \$85,320  
**Avg. Selling Price:** \$40,000

The '56 De Soto was a muscle car before anyone knew the name: 320 horses out of 341.1 cubic inches gave De Soto more power than anything else in its price range — and even above. It has a better power-to-weight ratio than a base '56 Chrysler 300. Hot De Sotos have been coming up for years — witness later versions selling for a quarter-million — so we were surprised to see the average on a Hemi-powered convertible like this one as low as it is. In the long run, we suspect that buying at twice the current market value may look like a prescient buy.



## DODGE

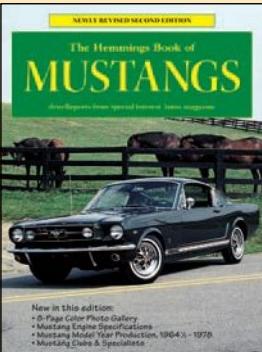
**Year:** 1957  
**Model:** Custom Royal convertible  
**Condition:** Restored/#1

**Reserve:** Undisclosed  
**Top Bid:** \$100,000 (Not Sold)  
**Avg. Selling Price:** \$65,000

A head-scratcher. This Custom Royal convertible looked terrific from every angle, and sported lots of power options: steering, brakes, windows and top among them. There was just one catch: This one was born with a 325-cube Red Ram Hemi, but wore a twin-Carter-carburetor D500-spec Hemi instead, making it worthy of inclusion in our coverage here. Now, a real D500 Dodge in this shape lists as a six-figure car... so how is a clone/tribute/not-a-real D500 supposed to fetch the same money? And when it does, how does the seller turn it down?

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By Mike McNessor



MECUM AUCTIONS

## MECUM SEATTLE HAULS IN 9.5 MILLION

### A Plum Crazy 1970 Dodge Hemi

Challenger R/T SE hauled in \$185,000 at Mecum's Seattle Auction in June, making it the top seller of the event's 600-plus-car field. The Challenger was said to be an original Hemi car with a replacement engine, but it retained its correct, numbers-matching, four-speed transmission.

A 1968 Shelby G.T. 500KR took the number-three spot in Seattle, selling for \$165,000. The desirable King of the Road edition was part of the John Wickey Collection and had reportedly been driven just 12,160 miles from new.

Five muscle cars from Wickey's collection were headliners at Mecum Seattle and all were sold, earning a total of \$630,000. In addition to his '68 G.T. 500KR, Wickey's 1969 Chevrolet COPO Camaro sold for \$170,000; his '70 Dodge Hemi Challenger R/T sold for \$150,000; his unrestored V-code 440-6 1970 Challenger R/T and 1968 Dodge Dart restomod sold for \$90,000 and \$70,000, respectively.

Mecum's Seattle auction was held at the CenturyLink Field Event Center, June 5-6, and earned a total of \$9,517,676.

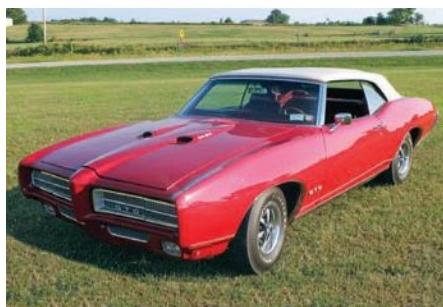
After the Wisconsin-based auction house's

### The complete top-10 list of sales at

the Mecum Seattle auction includes (all individual sales reflect hammer prices):

- 1970 Dodge Challenger R/T SE Hemi (Lot S76.1) at \$185,000
- 1999 Lamborghini Diablo Roadster (Lot S189) at \$170,000
- 1968 Ford Shelby G.T. 500KR fastback (Lot S95) at \$165,000
- 2002 BMW Z8 convertible (Lot S178.1) at \$165,000
- 1969 Chevrolet COPO Camaro (Lot S94) at \$155,000
- 1970 Dodge Challenger R/T Hemi (Lot S96) at \$150,000
- 1967 Shelby G.T. 500 fastback (Lot S117.1) at \$142,500
- 1956 Mercedes-Benz 190SL Roadster (Lot S118) at \$140,000
- 1992 Porsche 964 Turbo S2 (Lot S138) at \$130,000
- 1955 Chevrolet Bel Air hardtop (Lot S106) at \$120,000

stop in Monterey, August 13-15, Mecum's travelling road show will head to Dallas, Texas, on September 16-19, where the field of auction vehicles is expected to swell to 1,000 strong. For more information about upcoming sales or complete results from past auctions, head over to [www.mecum.com](http://www.mecum.com) or call 262-275-5050.



LEAKE AUCTION COMPANY

## HEMI CHALLENGER TOPS LEAKE OKLAHOMA

Leake Auction Company's Tulsa, Oklahoma, sale June 5-7, netted a total of \$11.7 million, and 74 percent of the 688 vehicles that crossed the block found new owners.

One of the auction's top sellers was a 1970 Dodge Hemi Challenger R/T that sold for \$150,000. The car was restored by Legendary Motors of Ontario, Canada, and featured on *Dream Car Garage* in April 2007. The Challenger is said to have its original build and broadcast sheets and has been driven less than 250 miles since the restoration was completed.

Also among the top sales:

A 1969 GTO Ram Air IV convertible—one of 59 built with the 370-hp round-port engine and one of 14 equipped with an automatic transmission—sold for \$110,000.

A 1966 G.T. 350H, sold with a copy of the original Shelby American shipping order and other documentation, changed hands for \$121,000. The car was equipped with a four-speed manual transmission, which if original, makes it an unusual car (though many have been converted from automatics to manual-shift transmission over the years).

Complete results from Leake's Tulsa auction results are available online at [www.LeakeCar.com](http://www.LeakeCar.com). The next Leake Collector Car Show and Auction will be November 20-22 in Dallas Market Hall. For more information or to consign to a future Leake Auction, visit their website or call 918-254-7077.

## DAN KRUSE STAFFER NEEDS YOUR HELP

**Monica Beakley, 42,** a member of the team at Dan Kruse Classics and single mother of a special needs child, was recently diagnosed with Stage IV lung cancer and is starting to undergo treatment.

Dan Kruse Classics is asking customers and friends to visit [www.gofundme.com/uddtmw](http://www.gofundme.com/uddtmw) (or go to [gofundme.com](http://gofundme.com) and search "Monica's Treatment Expense Fund") and consider making a donation. The goal is to raise \$50,000 to help Monica with her medical expenses.



## COBRA AND CORVETTE SQUARE-OFF AT ANDREWS AUCTION

### RM Sotheby's Paul and Chris Andrews

Collection auction in Fort Worth, Texas, May 2, brought in nearly \$54 million in sales, with 78 vehicles and an array of memorabilia crossing the block.

While most of the top sales were exotics and Full Classics, a pair of 1962-vintage American racers—a Cobra and a Corvette—were among the highest earners of the event.

The Cobra was chassis number CSX 2011, a 1962 Shelby 289 Competition Cobra that sold for \$1,980,000. The Cobra is significant because it's reported to be the first factory Competition Cobra sold. Its original owner was John Everly of Winfield, Kansas, who traded in a '54 Ferrari for the car and had Shelby prep it for its first outing at Nassau, Bahamas, with anti-sway bars, a roll bar, long-range fuel tank, shoulder harnesses and racing tires. The car is well-known in the Shelby community and last crossed the block back in 2008 at RM's Arizona sale where it changed hands for \$1,732,500.

If Blue Oval power wasn't your thing, you might've campaigned a Chevrolet Corvette in 1962, and there are few examples more desirable today than the Gulf Oil race car, which changed hands at RM Sotheby's Andrews sale for \$1,650,000. The car was last sold at Pebble Beach in 2008 for \$1.48 million, shortly after it had been restored and displayed at Corvettes at Carlisle.

The Corvette was sold new through Yenko Chevrolet in Canonsburg, Pennsylvania,

to Grady Davis's Gulf Oil Racing team and prepared for competition in SCCA A-Production. From the factory, it was powered by a 360-hp fuel-injected 327 and outfitted with a 37-gallon fuel tank, as well as heavy-duty brakes and suspension, special shocks, body scoops to direct cool air to the brakes and quick-ratio steering.

The Corvette went on to score 12 SCCA wins in 14 outings during 1962 piloted by Dick Thompson, one of the greatest drivers in American sports car racing history. The car competed again in the 1963 season after being sold to a new owner through Yenko Chevrolet. Over the next 20 years, the car went underground, resurfacing in the 1980s as a street car. The new owner was able to track down the Corvette's original engine and racing bits and, in 1987, restored it to its 1962 glory, complete with Gulf Oil livery. Over the ensuing 20 years, the car became well-known in the Corvette and vintage racing communities, winning many awards and accolades including induction into the Bloomington Gold Hall of Fame.

The Andrews Collection sale wasn't made up solely of the top one percent of collector cars, however. Lurking among the lots we found a 1970 El Camino powered by a 307 that had been upgraded with aftermarket EFI and an overdrive automatic transmission. Despite being a fairly common collector vehicle, the El Camino commanded a premium price at the auction, selling for \$30,800.

## AUCTION CALENDAR

### SEPTEMBER

#### 2-6 Auctions America

Auburn Fall  
Auburn, Indiana • 260-927-9797

#### 5-6 Silver

Sun Valley Auction  
Sun Valley Idaho • 800-255-4485

#### 12 Dan Kruse Classics

Austin  
Austin, Texas • 866-495-8111

#### 16-19 Mecum

Dallas  
Dallas, Texas • 262-275-5050

#### 24-26 Barrett-Jackson

Las Vegas  
Las Vegas, Nevada • 480-421-6694

#### 25-26 Silver

Portland Fall Auction  
Portland, Oregon • 800-255-4485

### OCTOBER

#### 8-9 RM Sotheby's

Hershey  
Hershey, Pennsylvania • 519-352-4575

#### 8-10 Mecum

Chicago  
Chicago, Illinois • 262-275-5050

#### 8-10 Vicari

Biloxi  
Biloxi, Mississippi • 504-264-2277

**Check dates** with auction houses before traveling.

One of the more interesting modified muscle cars offered at the sale was a Canada-built 1966 Acadian Canso Sport Deluxe Custom (sold here in cosmetically altered form as the Nova SS) powered by a 555-cu.in. Pat Musi big-block V-8 with a five-speed transmission. It was outfitted with aftermarket front and rear suspension and rolled on Halibrand-style aftermarket wheels. Compared to the Andrews' 1962 Ferrari 400 Superamerica SWB Cabriolet that sold for \$7,645,000, the Acadian seemed like a steal, changing hands for \$66,000.

For full results from the Paul and Chris Andrews Collection sale, or for further information on upcoming events, visit [www.rmauctions.com](http://www.rmauctions.com) or call 519-352-4575.

**L**ots more questions came in this month via our blog, Facebook and email regarding drivetrain and brake-system upgrades. We also track down a classic polysphere Mopar intake manifold and give you the skinny on the difference between a GM multi-fit bellhousing and the venerable B-O-P transmission bellhousing. We'll attempt to answer as many questions as space permits in this column. Thanks for your submissions—keep them coming.



## B-O-P BELLHOUSING VS. MULTI-FIT

**Q:** One thing is not clear for me: Some of the transmission conversions you feature in *HMM* mention a multi-fit bellhousing as well as the B-O-P bellhousing. It's obvious that the B-O-P bellhousing came on Buick, Olds and Pontiacs, but are all others multi-fit? I'll be using a 200-4R transmission in a 1964 Impala with a 327 V-8, and I need to know which donor cars to look at. The local salvage yard has a 1984 Cadillac and a 1986 Olds Cutlass. Unfortunately, my Powerglide has the 9-inch tailshaft, and it looks like I'll need to shorten the driveshaft.

*Al Porter  
Via Hemmings.com*

**A:** B-O-P bellhousings have a dip across the top of the surface that bolts to the engine. The Chevrolet housings have a peak, often referred to as a "barn roof" between the two top bolts, although there are no bolt holes on that peak.

Multi-fit housings were used on some later-model GM cars and are designed to be used in either application. Some versions of the later automatics, such as the TH-200-4R and the TH-350C, used the multi-fit bellhousings, so you may luck out with the Cutlass donor car if it has the Olds 307 V-8—that would likely have a 200-4R.

If so, that 200-4R transmission will almost certainly have the multi-fit bellhousing, so even though it came off of an engine with a B-O-P bellhousing pattern, it will still bolt up to a Chevy V-8 like your 327 using the other mounting pattern on its bellhousing. As a bonus, the 200-4R is the same overall length as most Powerglides, and also uses the same driveshaft slip-yoke spline. The transmission mount, however, is further back on the case than the Powerglide, and is actually in the same location as a TH-400.

## MONTE CARLO DISC BRAKES UNDER AN EL CAMINO

**Q:** Will the front disc brakes from a 1974 Monte Carlo be a good donor car to retrofit into my 1972 El Camino?

*Joey Talisayan  
Via Hemmings.com*

**A:** They will fit; however, you will need to do some additional suspension and modifications to get the correct and safest fitment. For the easiest disc-brake conversion for your '72 El Camino using factory components, look for spindles and associated parts from the 1969-'72 Chevelle, Buick Special/Skylark, Olds F85/Cutlass, Pontiac Tempest/Le Mans/GTO, 1969-'72 Grand Prix, 1970-'72 Monte Carlo or 1971-'72 El Camino/GMC Sprint.

You could also use the disc-brake spindles from an X-body 1969-'74 Chevy Nova, 1973-'74 Buick Apollo, Olds Omega or 1971-'74 Pontiac Ventura or the F-body '69 Camaro or Firebird. If you decide to use the setup from an X-body or F-body, you'll have to retain the steering arms from your El Camino, but that's a simple bolt-on swap. Oth-



erwise, the spindles from these models will all bolt in with no fitment issues.

However, the swap will be a little more involved if you want to use the '74 Monte Carlo you have, versions of which were employed on '73-'77 GM A- and G-bodies, as well as on 1970-'79 Camaros/Firebirds, 1975-'79 X-bodies (Nova, etc.) and some 1977-'79 full-size Buicks, Chevys, Oldses and Pontiacs.

The later spindles are taller than the ones on your El Camino, and though they can be made to fit, there can be some geometry issues. With stock upper and lower control arms, you may find that the upper ball joint hits the limit of its travel before the upper control arm does. This would create a dangerous situation if the suspension were bottomed-out on the road, possibly causing the upper ball joint to break. Trial-fitting the taller spindles to your suspension without the coil springs installed will allow you to test the geometry.

A better alternative might be to source the aftermarket, which offers kits to put the later, taller spindles on the earlier A-body like yours. Hotchkis Sport Suspension and Global West can both assist here.

- Global West Suspension, 877-470-2975, [www.globalwest.net](http://www.globalwest.net)
- Hotchkis Sport Suspension, 877-466-7655, [www.hotchkis.net](http://www.hotchkis.net)

## EARLY POLYSPHERE 318 INTAKE MANIFOLD

**Q:** I would like to find a four-barrel intake manifold to fit my early Chrysler polysphere 318 engine.

*Ronald Shores  
Via Hemmings.com*

**A:** Collector's Auto Supply has a used four-barrel original manifold for sale. Original Mopar part number was 1851762 or 1731609. Occasionally you will see one of the Weiand #7503 single-

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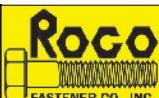
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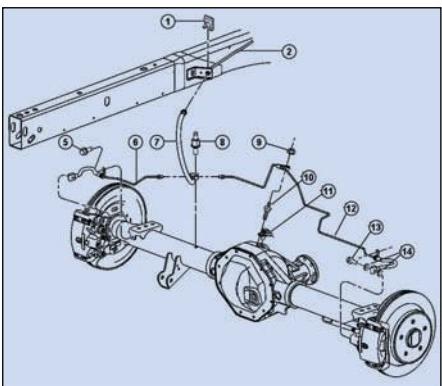




plane or #7508 dual-plane performance manifolds come up in online auctions or classified ads, but since they are no longer produced, they command high prices.

We noticed that Chrysler Power has just started producing its own four-barrel "Wind Tunnel" dual-plane manifolds for 1955-'66 polysphere engines (277, 318 and 326 displacements). They are available in cast aluminum or with an optional "deep freeze" black ceramic coating that is said to reduce intake air mixture temperatures 40-60 degrees below that of a conventional cast-iron stock intake manifold. This new production manifold was designed with the help of Bob Walker at Hot Heads, the Hemi parts source in Low Gap, North Carolina. The new manifolds are not cheap, and we are not sure about current availability, but it's worth a look.

- Chrysler Power, 888-548-2282, [www.chryslerpower.com](http://www.chryslerpower.com)
- Collectors Auto Supply, 888-772-7848, [www.nosmopar.com](http://www.nosmopar.com)



## CHRYSLER 9.25-INCH-REAR UPGRADE

**Q:** I am trying to upgrade the rear brakes on my 1998 Dodge Ram pickup. Can I install a disc-brake rear from a newer Ram with disc brakes without a lot of refitting?

Edward Robaey  
Via Facebook

**A:** You did not specify how big a Ram truck you have, so we'll assume it

is a 1500 or 2500 non-HD. The differences in axle lengths between the 1993-'99 (70-inches flange to flange), 2000-'01 (67.4 inches flange to flange) and 2002 and newer Rams (68-inches flange to flange) are minimal for the 9.25 axles.

It should be a simple upgrade for you to install a newer Spicer 9.25 with disc brakes by locating a donor unit at your local salvage yard. Two ratios were offered in those years, for both two- and four-wheel drive: 3.55:1 or 3.92:1.

If by chance you have a 2500HD or 3500 series truck, you would have a Dana 60 rear end, and a cheaper route to add disc brakes on that axle might be to get a set of disc adapters from Cutthroat 4X4, which can be installed on your existing axle, and the rest of the parts can be sourced from 3/4-ton GM front disc brakes, easily available from your local auto parts store.

- Cutthroat 4X4, 540-532-2906, [www.cutthroat4x4.com](http://www.cutthroat4x4.com)

## FOUR-SPEED MUNCIE AND FOUR-WHEEL DRIVE POSSIBLE FOR A BRONCO?

**Q:** Can you mate a Muncie four-speed transmission onto a 1992 Ford Bronco transfer case? Are there adapters to accomplish this swap?

Russell Rogers  
Via email

**A:** Unfortunately, there are no Muncie transfer-case adapters for the Ford version of the Dana 20 transfer case. The front output is on the left side of the case and the rear output is in the center of the case. Many enthusiasts use Ford Dana 20 internals to upgrade their Jeep, GM or IHC Dana 20 transfer case, but the complete units do not fit other manufacturers' drivetrains.

## LATE MODEL CHEVROLET 8.5-INCH REAR INTO A 1973 OLDS CUTLASS

**Q:** Would the rear axle housing from a 1996 Impala SS fit into my 1973 Oldsmobile Cutlass?

King Slic  
Via Facebook

**A:** We can probably assume you are referring to the B4U axles found on Impala SS and police cars, but, while we are at it, we'll also discuss the Chevrolet 9C1 axles found in mid-'90s Caprice sedans.



The B4U and 9C1 axles are desirable because they were also equipped with disc brakes, and the police car axles had special 3.08:1 (code "2LX" with 5.7 engine) and 3.23:1 (code "2LZ" with 4.3 engine) limited-slip differential ratios. There were two axle widths used on these 8.5-inch 10-bolt "corporate" rear ends. The 1991-'96 Chevrolet full-size sedans (also 1991-'96 Buick full-size and 1993-'96 Cadillac Fleetwood) used the 9C1 8.5-inch that has a wheel track 61.6-inches wide. The Impala SS B4U axles have a wheel track of 62.7-inches wide (center of tire to center of tire). Chevrolet also offered 7.625-inch axles in both widths in those year ranges.

Your 1973 Cutlass should be 60.7-inches wide (axle flange to axle flange) making the 9C1 axles a tighter fit. The offset of the later model wheel is more pronounced, you should be able to compensate for the difference in spacing with the correct wheel selection. The B4U axles used in the Impala SS would be tougher to find, but more appropriate for this type of axle swap. You should note that the wheel bolt pattern on the rear axles is also different between the two cars; classic Cutlasses used the 4.75-inch bolt pattern, and the Impala SS and sedan models used a 5-inch (128mm) bolt pattern. The aforementioned Fleetwood axles were slightly different because they were built for four-wheel ABS, which may complicate issues slightly. In all, this conversion is very possible and worth your time and efforts, if you can locate either of these axles.

**We welcome any and all questions** related to suspension, brake, engine, differential and transmission upgrades.

You can submit them to our Facebook page, [www.facebook.com/HemmingsNews](https://www.facebook.com/HemmingsNews) or our website where comments can be made at the bottom of dozens of previous Swap Meet articles we have posted there.

You can also email us at [swapmeet@hemmings.com](mailto:swapmeet@hemmings.com).

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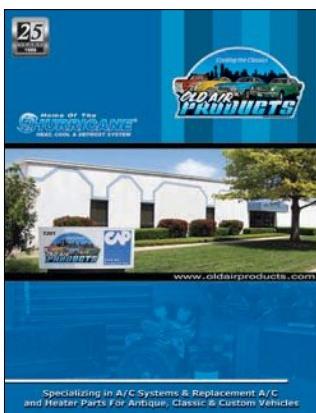
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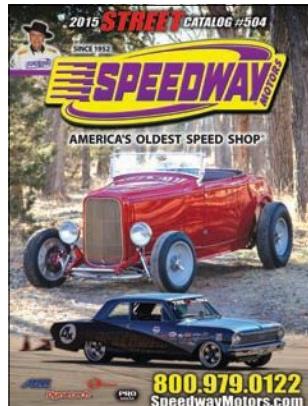
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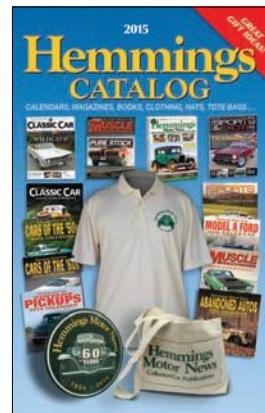
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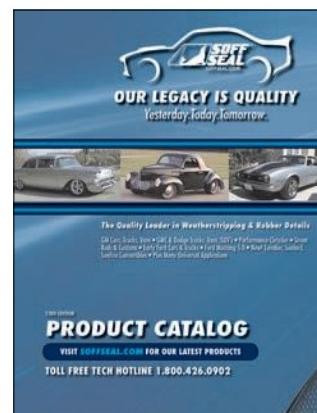
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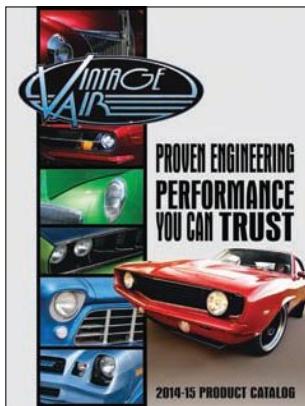
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| 248-324-8201  | 815-594-2410  |
| August 15<br><b>Woodward Dream Cruise</b><br>Woodward Avenue, Michigan . 248-335-8740           | August 28-30<br><b>Corvettes at Carlisle</b><br>Carlisle, Pennsylvania..... 717-243-7855                |
| August 16<br><b>All-Family AMC Meet</b><br>Livonia, Michigan ..... 248-250-3876                 | August 30<br><b>Motorama</b><br>North Adams, Massachusetts 413-664-6378                                 |
| August 16<br><b>American Car &amp; Truck Day</b><br>Brookline, Massachusetts ... 617-522-6547   | September 5-6<br><b>Silver Auctions</b><br>Sun Valley, Idaho..... 800-255-4485                          |
| August 16<br><b>Annual Car Show &amp; Flea Market</b><br>Goshen, Connecticut ..... 860-489-4500 | September 6<br><b>Musclepalooza XXII</b><br>West Lebanon, New York .... 800-227-4373                    |
| August 20<br><b>Hemmings Cruise-In</b><br>Bennington, Vermont ..... 800-227-4373                | September 6<br><b>Sumter Swap Meet</b><br>Bushnell, Florida ..... 800-438-8559                          |
| August 21-22<br><b>Silver Auctions</b><br>Olympia, Washington ..... 800-255-4485                | September 11-13<br><b>Adirondack Nationals</b><br>Lake George, New York .... 518-416-7387               |
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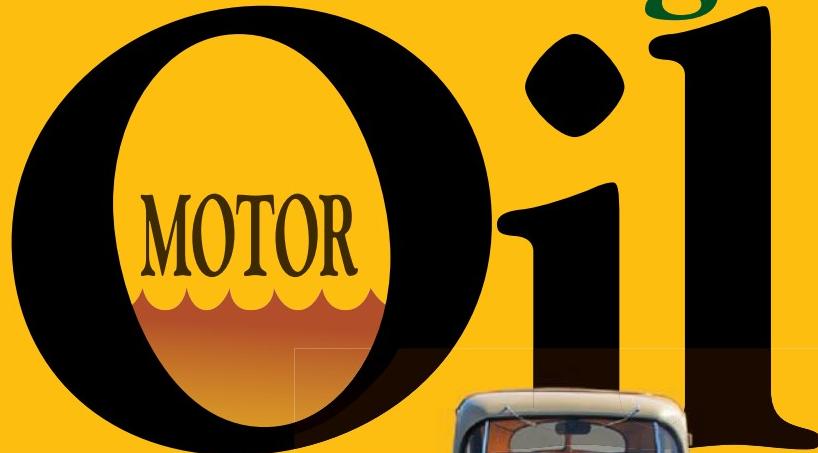
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**“After hitting a pothole and hearing a resounding CLUNK, my friend said, ‘There’s smoke coming from one of the tires.’”**

# Tale of the Trailer

**t wasn't a dark** or stormy night, rather it was a bright summer day, but the tale is just as eerie. A friend had just purchased a basket-case '68 Camaro with the intent of restoring it. The car belonged to a relative and had been disassembled with the thought of turning it into a race car. The windshield was missing, nothing forward of the firewall but frame and suspension was present, and the interior was jammed full of parts. The exterior was Pinto-looking primer and faded red paint; a real mess, but my buddy saw a shining beauty in all that chaos.

At nine sharp one morning, I met him at his house. He had his Hemi-powered pickup and 32-year-old "low-boy"-style trailer attached, ready to go and retrieve the hulk. The destination was about 2.5-hours away in the high desert area well east of Los Angeles. He told me that he had a tire explode on the trailer the day before, as he picked it up from storage, and just had a new tire installed. I wondered about the other three. "This can't be good," I thought as we headed off. The trip out was uneventful, if you can call driving on any LA freeway uneventful. Military-style "Traffic Combat Driver" badges should be issued out here.

Finally, we pulled onto the horse ranch property where the hulk was actually stashed beside a barn. Using a very cool restored 1942 farm tractor, we began dragging the car, with two flat tires, out to where we could load it on the trailer. My friend had brought four tires and rims to change out the rotted tires on the Camaro. We replaced the four donuts with the good tires, one of which immediately went flat. I thought, "This can't be good."

The sun was really hot by this time as four of us pushed the indigent Camaro up onto the trailer and secured it down. Then we loaded the transmission and other parts that were not inside the car into the truck bed, and all of us drove to lunch a short distance away. So far, so good, I thought.

After eating, the rest of the crew went home, and we got back on the freeway heading west, traveling about four miles in the slow lane. After hitting a pothole and hearing a resounding CLUNK, my friend said, "There's smoke coming from one of the tires." Now I knew this wasn't going to be good.

We got off the roadway at the next exit and pulled over to inspect the damage. The ancient trailer's peeling-chrome fender was rubbing a tire sidewall just below the tread and had already grooved the rubber rather deeply. It was also the new tire! We unloaded the stuff out of the car into the truck bed to lighten the trailer's load

and slowly pulled the trailer further up the off ramp to a much safer spot. After an inspection we ascertained that the U-bolt holding the axle and spring together had let go (explaining the pothole clunk), dropping that side of the already lowered trailer down on the tire. The spring was now also sitting on the ground. I thought, "This is going to be very bad!"

A call back to my friend's relative brought him with a flatbed trailer and some additional help to the location of the carnage. We then, with considerable effort, transferred the Camaro from the injured trailer onto the newer flatbed and secured it down. Then, using a heavy chain, we secured the dropped spring back up close enough to the axle to clear the pavement. After completely removing the fender on the broken side, we limped the wounded trailer back to the ranch followed by the other trailer and Camaro.

So far, this little episode had cost us an additional 3.5 hours and we had not accomplished anything but a lot of work, aggravation, heat, dust and broken parts, plus we were right back where we started. Except for lunch—a good bowl of chili—the day was an exercise in frustration.

Again we off-loaded the Camaro, this time with only one flat tire, beside the barn for retrieval at a later date. Only now the low-boy trailer was parked next to the Camaro, next to the barn. After a discussion on how the car and trailer could be brought the 2.5-hours home with some degree of safety, we took the parts in the truck and started west.

After hitting the road again, trying to make my buddy feel better, I said something like, "Well, at least we saw some nice country and had great weather." He immediately replied, "Bullsh-t. It was a terrible day, we have several hours in miserable rush hour traffic before we get home and we accomplished nothing." I had to admit he was right on all counts.

Eventually, all was put right, and the Camaro, vintage trailer and all the parts were back in my buddy's driveway. The low-boy trailer soon became the "long gone low-boy" trailer, with a new one replacing it, and the Camaro is still a very long, expensive way from being anywhere near completion. But all involved learned several valuable lessons: Never hit the road with worn-out equipment, almost no tools, questionable tires and equipped only with enthusiasm and zeal.

I should have known at that first feeling of "this can't be good" early that morning that the day's ending would be questionable. Always go with your gut feeling, especially when the second "this can't be good" attack occurs. Slowly back away, wave, then turn and run!



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